

# NEW OLD STOCK



NICHOLAS LIPPERT



# SIGNATURE PAGE

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## NEW OLD STOCK


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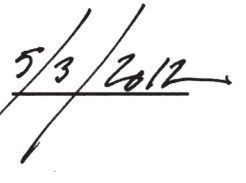
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Landscape Architecture of  
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By

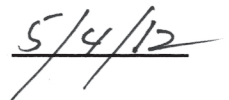
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In Partial Fulfillment  
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for the Degree of  
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# ABSTRACT

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This project, Detroit's New Workforce: A Detroit Renewable Energy Workforce Training Center, examines how and where the sense of place exists within a construction. From that conclusion, it will investigate how sense of place lives within a new environment. The proposed 29,000 square foot commercial building in downtown Detroit sits on the site of a recently demolished building. The new construction will continue the previous sense of place to make the it more significant culturally.

**Keywords:**

Sense of Place

Old

New

Workforce

# THESIS PROBLEM STATEMENT

HOW DOES SENSE OF PLACE LIVE IN A NEW ENVIRONMENT?



# STATEMENT OF INTENT

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TYPOLGY

CLAIM

PREMESIS

PROJECT JUSTIFICATION





# STATEMENT OF INTENT

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## TYPOLGY

Midrise urban headquarters

## CLAIM

A historical sense of place can reside in a new construction. The historical remnants have the ability to hold significance that portray or represent a sense of place. By integrating these remnants in a new construction expressively, the sense can continue in a new construction.

## PREMISES

Sense of place is a quality that one gathers through experience, it is nearly impossible to quantify, and it is personal to each user, even when the sense comes from the same place. "Whether we recognize it or not, they (senses) still are part of our own reaction to a place" (Jackson, 1980).

History is innately important to any structure. Structures that have more history are seen as more important. New construction is often seen as less valuable culturally and therefore is often dismissed as holding any significance.

Historical sense of place is important to any structure. By transplanting an existing sense into a new structure, the new structure becomes more significant by continuing the history that is established.

## PROJECT JUSTIFICATION

The importance of this premise is to explore what makes a structure important in a culture's eyes. By finding what makes existing structures important, the techniques can be reused in a new construction to make it more important culturally. Whether it is time, materials, human interaction, or even cultural stigma that makes a building important, these elements can live on in new construction.



# PROPOSAL

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NARRATIVE

USER-CLIENT

PROJECT ELEMENTS

SITE

PROJECT EMPHASIS

PLAN FOR PROCEEDING

STUDIO EXPERIENCE

# NARRATIVE

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HOW DOES SENSE OF PLACE LIVE IN A NEW ENVIRONMENT? Sense of place as a phenomenon is nearly impossible to quantify. It is, however, a very important piece to any environment built or unbuilt. It is the perceived aspect that any user has of a particular place. It uses the five human senses to gather information and correlate them with previous knowledge, such as historical, cultural, climatical, economical, and personally emotional. The perception of the place is the sense of place.

Architecturally, certain tools can be used to influence the sense of place. Scale, for example can give people emotions of monumentality, prestige, fear, delight, comfort, or even contentment. These emotions are attached directly to the sense of place because it is a personal perception that one innately derives from the surroundings. Every location has an individual sense of place. From a cabin in a Rocky Mountain winter to a busy high-rise in downtown New York, each place has an innate ability to strike images in our imagination. Because of this close tie that we all share with our surroundings, it serves as a valuable endeavor to examine what key elements an architect can use to regulate a sense of place.

History is the framework that sense of place exists within. History holds the ability to add layers of perception along with time. It adds significance by giving a place knowledge for us as users to learn from. Cities across the world are acknowledging the importance of historical structures and preserving them for future generations. This shows that we, as humans, understand the importance of historical structures and the value they can give us.

This project sets out to examine first what is sense of place; not only for a site, but as a sense. Is sense of place something we must learn to do or is it innate? Is it physical, or is it purely emotional? From there, how can the sense from a previous building that is no longer standing be taken over by a new construction? The techniques learned along the way will prove valuable to new construction by continuing previous significance from another structure.

Detroit, Michigan has been hard hit economically and socially more in the last 20 years than any other city in the country. Its industries depleting and workforce becoming ever smaller, the city is losing the brilliance it once knew. Its sense of place is in jeopardy of never being one of prosperity. This project will explore how a new industry can move to sustain Detroit and maintain the existing sense of place.

# USER-CLIENT DESCRIPTION

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## USER

The primary user for the project is the public of Detroit, focusing on a labor force, as well as the general public.

## CLIENT

The owner and operator of the project is Detroit Renewable Energy, a parent company interested in renovating existing infrastructure within Detroit and the area to new standards. DRE is committed to advancing new ecological industries within the manufacturing capitol of the U.S.

The project serves as a training and learning center for ecologically based jobs within the area. The center will be operated both as a training center for unemployed unskilled labor and a learning center for the general public. The building uses a holistic approach of design to explain how urban areas can become more ecologically sound and encourage growth.

# MAJOR PROJECT ELEMENTS

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## TRAINING CENTER

OPERATIONAL TRAINING FOR NEW LABOR FIELD

## LIGHT MANUFACTURING FACILITY

WORK IN CONJUNCTION WITH THE TRAINING CENTER

## ADMINISTRATION OFFICES

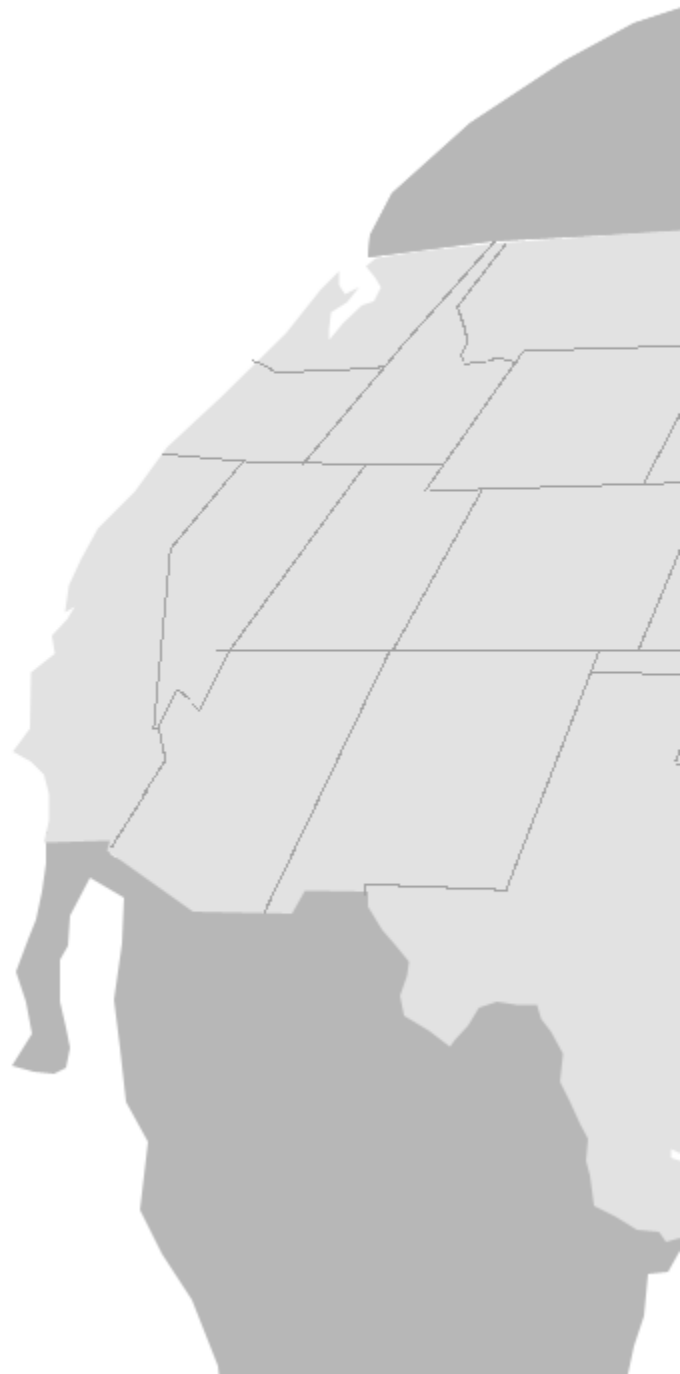
DOWNTOWN HEADQUARTERS FOR DETROIT RENEWABLE ENERGY

## LEARNING EXHIBIT HALL

PUBLIC EDUCATION OF ECOLOGICAL LIVING IN THE URBAN ENVIRONMENT

## OUTDOOR PARK

PUBLIC URBAN LANDSCAPE



# SITE INFORMATION



Detroit, Michigan is located on the largest manufacturing waterway in the world. It has served as a vital link for production within the United States.

# SITE

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The upper Midwest of the United States have been in decline for the past ten years, both in population and economy. Once the heart of the industrialized America, Michigan is now threatened with bankruptcy and dramatic population loss.





144 West Lafayette Boulevard is located in the heart of downtown Detroit. The area has been hard hit by building demolition and the overtake of parking lots. The site was home to the Lafayette Building, a 14 story office building that was taken down in February of 2010. The site is currently a public garden that protects against a parking lot growing on the site.

The site holds an interesting history and significance to the area. To study sense of place, the site is a good candidate to understand what was and what could be in the future.





# PROJECT EMPHASIS

The project first explores what Sense of Place is along with its significance within a new building. Second the project explores new industry Detroit can employ to move into the future.

# PLAN FOR PROCEEDING

## RESEARCH DIRECTION

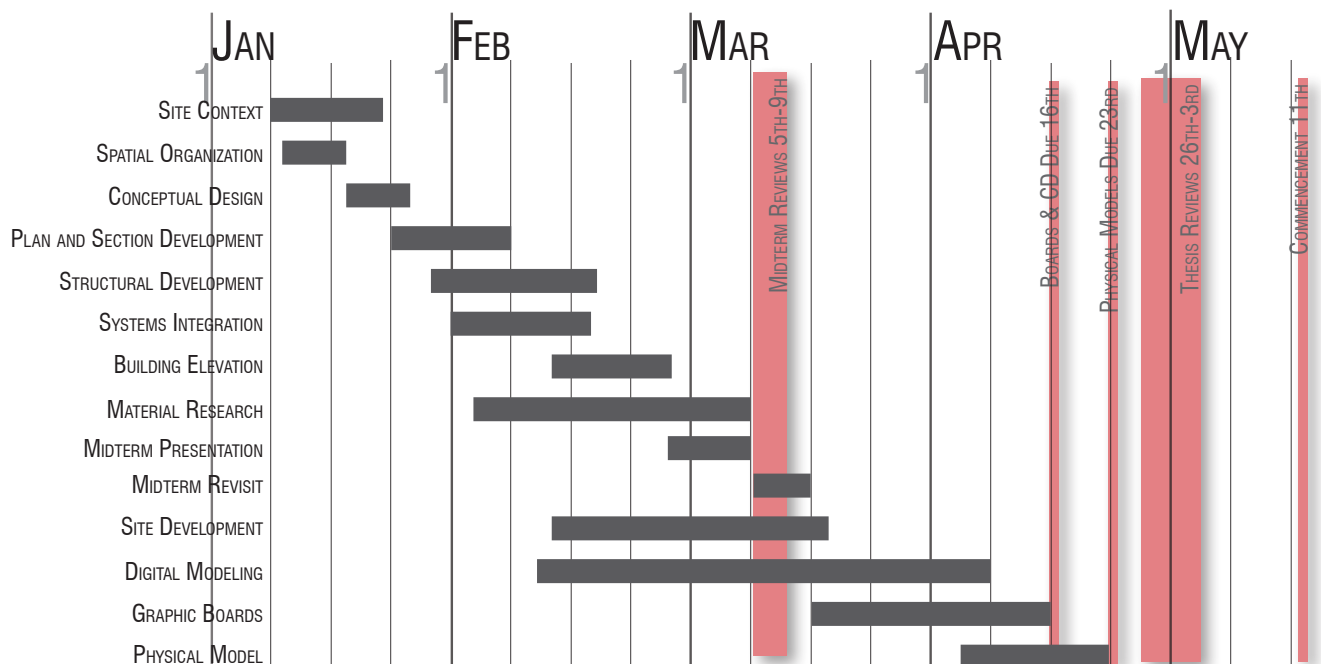
During the process of the project, research conducted focuses on theoretical premise and unifying idea, typology, historical context of site, physical and demographic context of site, and programming.

## DESIGN METHODOLOGY

The design methods employed focuses on both quantitative and qualitative analysis of the site and surrounding area, graphic analysis and representation, digital analysis and representation, as well as site visit and documentation. Data analysis of economic and cultural statistics are conducted through archival gathering and graphic representation. Qualitative aspects of the site are gathered primarily by an on site visit, as well as local interaction.

## DOCUMENTATION PLAN

Documentation is a compilation digitally of all journal entries, hand drawings, digital drawings and models, physical models, notes, important information, and related articles. Documentation is preserved weekly in two locations one online and one hard copy.



# PREVIOUS STUDIO EXPERIENCE

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## 2008

ARCH 271 JOAN VORDERBRUGGEN  
Tea House - Moorhead MN  
Boat House - Minneapolis, MN

## 2011

ARCH 472 MALINI SRIVISTAVA  
PASSIVE HOUSE Design/Build -  
Fargo ND

ARCH 771 MALINI SRIVISTAVA  
PASSIVE HOUSE Design/Build -  
Minneapolis MN

## 2009

ARCH 272 DARRYL BOOKER  
Dwelling - Marfa TX  
Dance Academy - Fargo ND

ARCH 371 PAUL GLEYE  
Center for Excellence - Fargo ND  
Snow Symposium - Winnepeg MB  
Center for Intellectuals - Fargo ND

## 2010

ARCH 372 MILT YERGENS  
Ice House - Fargo ND  
GERM: Machine in the Field - Stoneville MS  
Regent Design Charette - Regent ND  
Chicago Architecture Tour  
Fargo Center for Professionals - Fargo ND

ARCH 471 FRANK KRATKY  
San Francisco Architecture Tour  
High Rise - San Francisco CA  
KKE Design Competition



# PROGRAM DOCUMENT

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RESEARCH RESULTS

CASE STUDY 1

CASE STUDY 2

CASE STUDY 3

CASE STUDY SUMMARY

HISTORICAL CONTEXT

PROJECT EMPHASIS

SITE ANALYSIS

PROGRAM ANALYSIS

RESOURCES

# RESEARCH RESULTS

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Sense of place has existed just as long as there has been a place. Place has existed ever since there has been something to acknowledge it. One can imagine a philosophical scenario if there was “place” before there was something to be in it. Regardless, in order for the sense of a place to exist, two things need to be present: a place and someone to experience the sense.

The premise behind asking how a historical sense of place can reside in a new construction is to study what sense of place is, and how we, as users of space, understand and perceive it. Many studies have been done to understand what location is and similarly what “place”, as a creation of perception, is to the user. Also, to understand how sense of place can be studied as an academic or professional is a practical question of viability to a specific purpose. The study can prove informative when creating new places by showing important relationships users perceive with place. Lastly, to understand how sense of place and time relate and coexist with one another can help explain interaction and interest we as humans perceive for understanding a place. The study can also explain what significance a place can carry within the culture it exists.

A place can be defined as a destination or a goal at the end of a journey. It can also be used as a universal term for any location on the face of the Earth (Garnham, 1985). Place as used in sense of place is a significant location either physically or emotionally. It becomes a destination; it holds importance to the user. It can even become something other than a physical location and live within imagination or digital worlds. An illustration of “place” is what we imagine when we think of our first home. What it looked, smelled, sounded, felt like is that “place”. If one or more of these qualities are removed, home may just become house.

Place as a phenomenon of human experience lives within the context of the human brain. We create place in a different manner than we create location. Location is a physical point created or recognized; created by establishing a rest stop for example, or recognized as a natural location, such as Niagara Falls. Location often coincides with a representation, such as a map and can be a variety of scales from a planet to a room in a home. Place is deeper than location. Place is a perception of location that we as users of the location generate. Place is a location that through interaction becomes significant to the user. It too can transcend scale but is much harder to quantify.



Similar to each place being unique qualitatively, each person that experiences the place is different. Consequently, each person's perception of the place is different. The perception we gain by being within the place is built up layer by layer by gathering information. The five senses we possess, all three physical dimensions, emotions, and time in which we use the place all contribute to the overall perception.

Anatomically, we are tuned to gather and compile information, each of the five senses gathering information that relates to the other senses. Vision is the most common and most defined sense we possess as human beings. When one describes a location, visual information is the foremost description. Architecturally, sight holds a great deal of information: the style of the composition, the surrounding context the composition dwells within, as well as the special arrangement as we perceive it. Auditory, or sound, information commonly falls into the second sense we use for defining a place. The activity around the site such as traffic, or lack thereof, vegetation, echo in large expanse and background noise leave impressions on users of space. Olfactory, or smell, is said to have the greatest impact on memory and therefore is a powerful tool when describing perception. Vegetation, select materials, fresh water are all examples of architectural uses of the olfactory sense. The sense of touch, or somatosensory, in its entirety can describe textures of pathways, temperature and body position within space. And lastly, the sense of taste also has an effect on the perception of place. For example, if the place is attached to memories of a great meal or specific drink, the place will be connected to that sense indefinitely (Tuan 1974).

The five human senses all act independently and nearly automatically, however to grasp the entire experience, combinations of the five are critical. For example, the somatosensory coupled with the sense of sight is how we define scale within a space. It is a two part experience, first we visually see the space, either large or small, and compare it with other commonly scaled items, such as another person. Then we experience the space by being within it. We feel the presence of the space by sensing the relationships to the boundaries of it. The gathering of this information happens innately. As we interact with a space we use our senses in the present tense, use our knowledge of the place in the past tense, and imagine the place in the future tense. All of this happens simultaneously. We all have the tools to gather this information, but it takes careful attention to use the tools to our advantage.

David Glassberg in his book *Sense of History* has developed six “axioms” about place. Each axiom defines a boundary that we experience place as an object and a phenomenon. Listed below are the six.

- 1) A sense of place does not spring naturally from the environment.
  - 2) Places, in the end, are not interchangeable with other places.
  - 3) Place values are rooted in the material world.
  - 4) We experience places as overlapping locale with permeable boundaries.
  - 5) We articulate a sense of place in dialogue with others.
  - 6) Our sense of place and of history are inextricably intertwined.
- (Glassberg, 2001)

In explanation

- 1) A sense of place must be acquired, not obtained from the surroundings. One must experience the location to develop a perception of place. This is not to say nature has less value as “place”, it is to say that any environment, natural or synthetic, must be experienced to achieve a sense of place.
- 2) A valuable truth that each sense of place is different. Just as each person holds unique qualities, so does each place, and therefore perception of that place.
- 3) This axiom may seem contradictory, however in order for a sense to be generated, there needs to be a material quality to start the perception. It could be as simple as an empty plain or as complex as a downtown highway, but it generates specific qualities we observe. There is one doubt to this axiom however: the digital world. Can a world created within digital boundaries create a sense of place, and can it be of the same value as the physical world?
- 4) Each location has a series of layers that branch out with information. A street grid for example defining building lots carries information about other locations that the grid creates. Scale is also called into question with this axiom. It shows that there is no scale to place.
- 5) The most indisputable boundary about sense of place. It is history that creates a framework for sense of place to dwell within. Time is a valuable dimension in design and is often a multiplier of perception of place.

Each “axiom” as important as the last describes Glassberg’s views on how we experience the environment around us. Consequently, all six of these are views on human relationships as well. Each one speaks to different values that we see in each other. For example, axiom four speaks about how a place is more than a location, place can become a variety of locations intertwined

to form the common sense. As for human relationships, a single relationship can create or be defined by multiple connections to multiple people. Point being, we have an ability much like human interaction to interact with a place. We experience place similarly to how we experience each other.

Specifically, axiom six speaks to a historical relationship to sense of place. History becomes the vehicle in which information is carried by a location. History, however familiar or foreign, is an important part to our perception of a place. Historical sense, that being the sense that existed in the past, leaves an imprint upon the place it is attached to. Native users that have been around or taken part in that history have gathered that sense of place innately. (Tuan, 1974) However, when one is to study the effects of history that resides within a place, the full context is difficult to understand. Daily life over time for example is especially difficult to understand as an observer.

How does one study sense of place?

There are seemingly two different ways to study sense of place: one as a native or inhabitant of the place, or as a foreigner to the site. Natives have accumulated the information that leads them to the sense of place because they first lived in the place. They generally will have knowledge of the site as well as interesting insights about the place. Foreigners are at a great disadvantage to understand the sense of place in its totality. Physically, one can study the place from within, but the full appreciation of the place cannot be found without experiencing the place first hand. Researchers both professional and scholarly have tried to overcome this large handicap. Various methods of gathering the local perception, such as interviews, have proven successful. However, it seems the most thorough and powerful method of finding a local's knowledge and insight is to become one.

J.B. Jackson explains that even though he has seen much of the United States first hand, he has just scratched the surface of what is really there. Tourists for example have the ability to perceive spaces just as the locals, but the tourists are treating the place much like a zoo. They stop, maybe snap a picture or two, and move on to the next place. More dedicated tourists may venture off the beaten path to find more local culture and maybe find a local friend. Unless the tourist is keenly aware of the surroundings and what it may be telling them, their individual sense of place may be much different than that of a local. (Jackson, 1994)

This begs the question: Whom is the researcher trying to identify with? Is the researcher's perception of place enough for study or is it imperative to understand how a local understands place? For this project, it is imperative how a local understands their surroundings and what their sense of place is, or was. Some different examples of strategies have been researched and a combination of different strategies is found to be a promising solution.

#### Pre-inventory

With the specific location selected, background information from an architectural point of view is collected. Physical traits of the area are collected such as transportation routes, surrounding buildings, and green spaces. Demographic data is collected to understand the quality of life the inhabitants are experiencing. Historical surveys are very helpful to describe the reasons for the place. Also, any events having played out on the place are likely to be uncovered. Once the investigation has begun, the researcher has the knowledge of what to be specifically attentive to. The site has many stories to tell, and the goal is to hear all of them.

#### Site Visit

The most important step of the process is getting to know the place first hand, to engross oneself into the place as deep as possible. Photographs, sketches, interviews, and videos are all tools that are done on site in the presence of the place. These steps cannot be replaced by observing at a distance. Keeping the pre-inventory in mind helps to focus the effort to specific items of interest. Time becomes an important factor of the site visit. Time spent interacting with the site and understanding the specifics is important to the perception.

#### Analysis

Once all of the information and data has been gathered, analysis can take place. The goal is to accumulate layers of information to study connections that are significant to the place. From the connections, one can cross the significant first hand experiences with these layers to find the sense of place.

How does Sense of Place transcend time?

J.B. Jackson develops a rich opinion of sense of place in his book *Sense of Place, a Sense of Time*. He explains, "sense of place is something we

create in the course of time” (1994). This suggests that sense of place is developed through time and interaction with the place, not necessarily by the features on a façade or the number of parking lots. This suggests that the sense of place is more than physical characteristics analyzed. It is more about the way the characteristics overlay in a unique way to the place.

The way the layers interact change depending on time. For example, the Chicago Loop neighborhood in Chicago, Illinois has undergone several transportation changes in its lifetime. Before the cable car was introduced in 1882, dirty cobbled streets full of horse drawn carriages dominated the streetscape. Once the Union Elevated railway loop was built in 1897, the main transportation became rail lifted above the street. This created more poorly lit alleyways that gave way to crime. Taller buildings grew around the elevated tracks and allowed more and more people to live and work closer to the downtown district. This built up the social class in the area which did not need to commute. Most of the people using the transportation system were lower income from farther south (Chicago Historical Society, 2005). Through time new advancements were made and unexpected consequences became apparent. One layer changed and sent the changes through the others.

Sustaining sense of place throughout time becomes much more difficult and oftentimes politically heated. The National Historic Preservation Act of 1966 states, “the historical and cultural foundations of the Nation should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people”. The NHPA seeks to preserve properties - public or private - that describe what the American landscape was and is, or in other words, the American sense of place. Although I think most will agree that the preservation of American history is an important avenue to pursue, it puts into question what is important to the American sense of place. Is Independence Hall, where the Constitution was signed, worth preserving? Is John Hancock’s home worth preserving? Is the shop where he bought his bread worth preserving? What about the mill that made the flour for the bread? My point is, if every place that was related to a significant time in our history is preserved, what won’t be preserved? Usually the buildings that aren’t considered valuable enough to preserve are those that are either in extreme disrepair or do not hold enough economic value to preserve. This unfortunately includes town halls, market districts, churches and even entertainment halls. These structures are what created public significance, not the home of a wealthy entrepreneur or statesman.

This offers the question: does sense of place need preserving? Moreover, does it need to transcend time? Sense of place does and will transcend time by offering generations of users similar experiences. Niagara Falls for example is a destination that has wondered visitors for centuries. The experiences generated by the Falls are similar, and therefore the sense of place is similar for each visitor. The generations to come will have the same experience as the former generations. In this case, the sense of place has and will continue to transcend time.

Does a sense of place need to transcend time? No; sense of place may even have an adverse effect on a location by ending the flow of history. History is about change, happenings in the flow of time. When a building that has existed throughout an important piece of history, we are compelled to cement that building to that time period. Towns of the old west have done this for years by restoring a portion of downtown to how it looked during the settler days. Undoubtedly, it has been done for an economic or historic reason, usually tourism. When this happens, the place is no longer creating new history; history has ended the day it was taken back to a previous point in time. Sense of place is then trapped in time as well. It will remain in its current state until it is unusable (Jackson 1980).

Placelessness is a phenomenon that some say is taking over the American landscape. The absence of place as significance can hold dire consequences. If a location were to become placeless, in essence history for the location would stop, cultural significance becomes near nonexistent and the economic value of the location would be ruined (Glassberg, 2001). Supporters of the placelessness phenomenon argue that locations, such as shopping malls, suburban developments, and even office complexes are placeless. Granted, many of these locations lack cultural significance, unlike an established neighborhood or downtown shopping district; however, this may be purely due to the low historic value. These building concepts are relatively new in America's eyes; they did not become popular until post WWII when the need for housing and economic development was at its greatest. If placelessness exists, how long until it becomes a "place"?

However, just as sense of place exists in perception, placelessness is in the eye of the beholder. For the city planner or architecture professional, suburban developments and shopping malls may be the root of all evil by

degrading social notions of community and neighborhood. But how does a user of the area feel? The homes are generally upper middle class houses and represent hard work and commitment; they represent social status and success. Shopping malls are for commerce and even provide income for the residents. They provide public access and a sense of community to those that take part. The two perspectives may be extreme, however the spectrum exists. Placelessness may be better described as the lack of perception of place.

Sense of place is a changing, adapting entity that is unique to every person that experiences the place (Sauer, 1980). Within time, the sense of place exists continually while changing. Even once a building has been demolished and the site remediated to its perceived natural state, the sense of place holds the history that happened to it. It will live within the new earth that was put over the basement and in the young trees planted in place of the sidewalk. They will hold the evidence of the once-was. The historic sense of place may be deemed inconsequential by another happening in time. Say a large apartment complex was constructed on the site. No matter how deep the foundation piles are dug or how large a parking lot is constructed, the site will hold the history of what has happened.

In totality, every location can become place through interaction. Every location has the ability to trigger human senses, as well as emotional responses. Every location has the ability to unveil its quantitative and qualitative information. And every location has history, however sparse or complicated. These three aspects of location create place; senses, information, and history. The difficulty then lies in understanding how to overlay the information to understand the place for what it is.

Because the environment we live in is much like a vinyl record continually being cut with more information, the sense of place is there- always. With more and more layers of history adding to the album, it only takes a particular tool like a record player to uncover all the pops and clicks of history imbedded into the site. It is the job of the architect to listen to these records and acknowledge what once was to be able to record a new layer.

# SUMMARY

Sense of place is an assembly of information that we collect. The information is generated from our five primary senses, as well as knowledge we obtain. The total package of information can be referred to as the perception of space.

Place, as a phenomenon, is different from place as location. Place, as a phenomenon, refers to the significance a location holds within the user gained by experience with the site. Location refers to a physical area that the user occupies. Location can vary in scale and is held within the physical world. We create place by using experiences in the location to generate significance in memory (Garnham, 1985).

As a framework to generate place, six axioms were developed by David Glassberg. They are as follows:

- 1) A sense of place does not spring naturally from the environment.
- 2) Places, in the end, are not interchangeable with other places.
- 3) Place values are rooted in the material world.
- 4) We experience places as overlapping locale with permeable boundaries.
- 5) We articulate a sense of place in dialogue with others.
- 6) Our sense of place and of history are inextricably intertwined. (Glassberg, 2001)

Sense of place cannot be studied quantifiably. It is a perception that is unique to each user and each experience. Two specific viewpoints are innate to studying place: as a native or visitor, and both are unique in relationship to site. Specifically, time is the greatest factor defining the viewpoints. As a native, one is engrossed within the location, and the sense of place is generated over longer periods of time, and therefore the native has more experience to perceive. As a visitor to the location, one is limited to a timeframe (Jackson, 1994). The lack of time limits the ability to experience and perceive the site as one would as a native. Therefore, to study sense of place as a visitor, specific techniques are employed.

Pre-inventory is critical to understanding historical significance, regional context, physical features, and specific conditions. With this knowledge of the study site, a visit to the site becomes more conducive to experience.

The site visit provides one personal experience with the location. It allows one to generate a personal perception of place. Physical site qualities



are observed or taken part in; experience of physical contact, as well as photographic media used for future reference, is taken.

Analysis of all information gathered culminates in the overlay of many layers; each layer being a specific piece of information. When the layers are compiled, conclusions of site conditions and site qualities are generated to understand what the location is as place.

Sense of place is dictated by time as a framework. As discussed earlier, the difference of native perception and visitor perception is dictated by time. Moreover, time creates history for the site. History, however long or short, becomes the story of the location's happenings.

Historical preservation has the ability to stop history for a particular site. By restoring or returning a site to a previous time, the site is therefore unable to create new history. The site becomes transfixed and unable to develop into anything more. Also, sites are able to become placeless with development.

Placelessness is a quality of a site that provides no significance to the users of the site. Professionals often describe suburban developments as placeless as each structure becomes a copy of the previous (Glassberg, 2001). This creates again a historical transfixion of the site. However, as previously stated, each user of a location carries an individual perception of place. This suggests that while a site may be placeless for observers, natives of the site may carry a different perception, a more significant perception.

Sense of place is unique in any circumstance that arises from a particular site; it flows with history, it is developed differently and it is remembered uniquely. Each person that possesses experience within a site may or may not have a perception of the place. However, significance in place does exist and users of sites become attached to places just as they become attached to other people.

The environment the human population exists within is as starkly diverse as the human population. Perception of what we experience is how we as humans operate within the environment. Each perception is as unique as the person holding it.



# TYPOTOLOGICAL RESEARCH

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## CASE STUDY 1

HEDMARK CATHEDRAL MUSEUM

## CASE STUDY 2

KALLCO WIENERBERG CITY LOFTS

## CASE STUDY 3

ARTSQUEST CENTER AT STEELSTACKS

# CASE STUDY 1

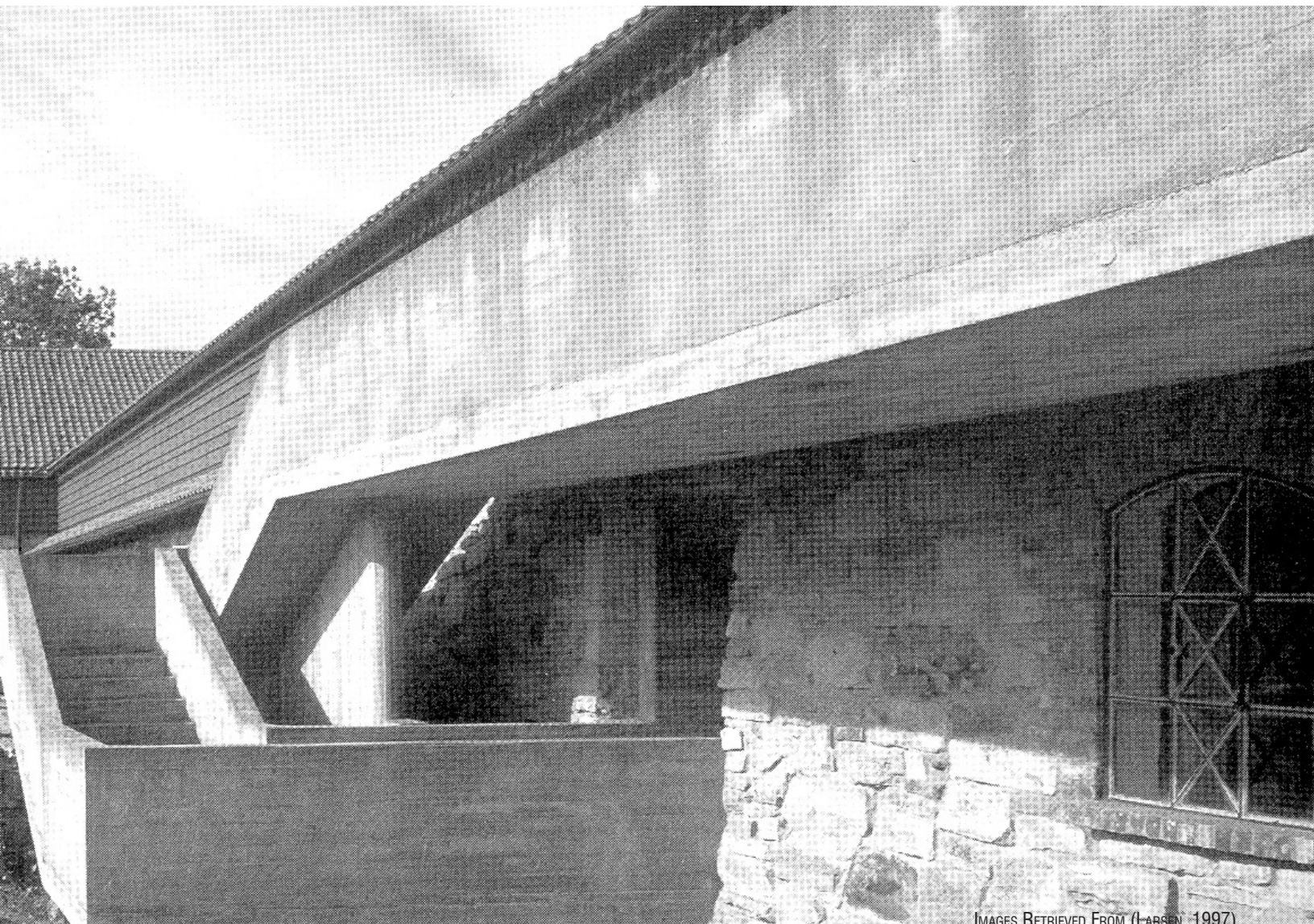




HEDMARK CATHEDRAL MUSEUM

HAMAR, NORWAY  
1969-1979

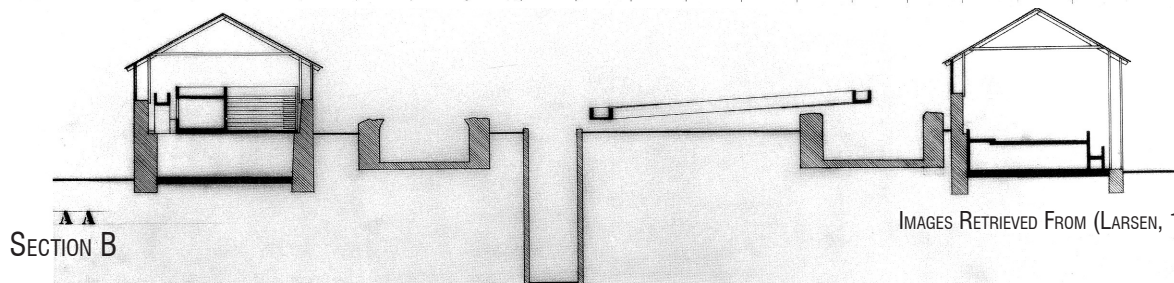
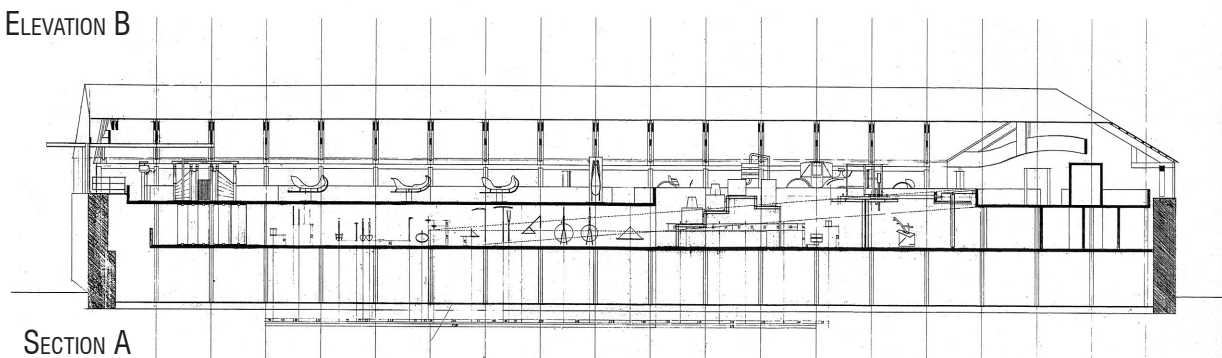
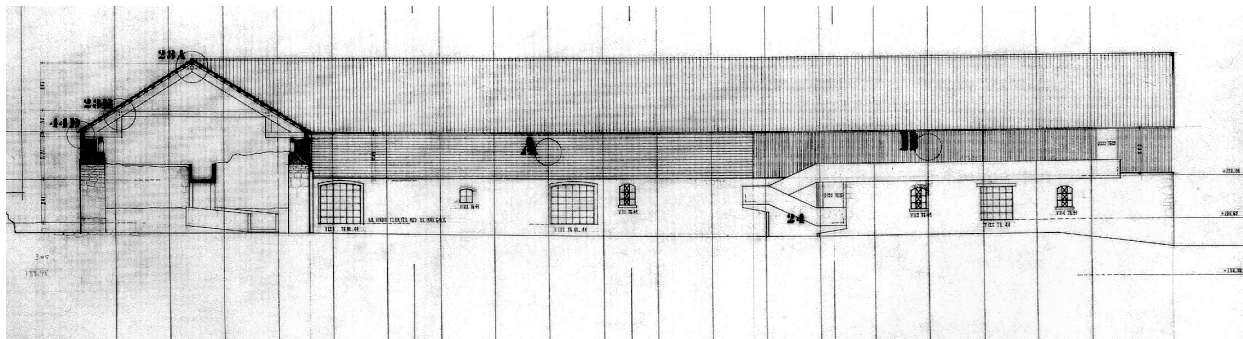
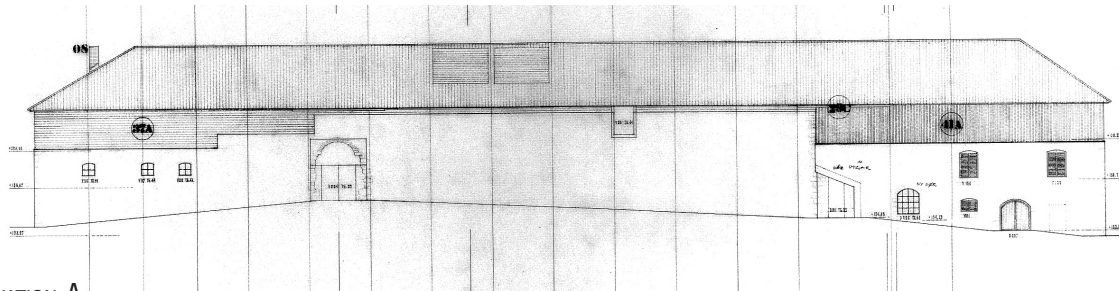
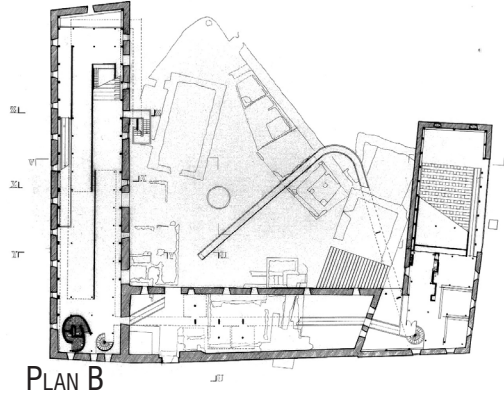
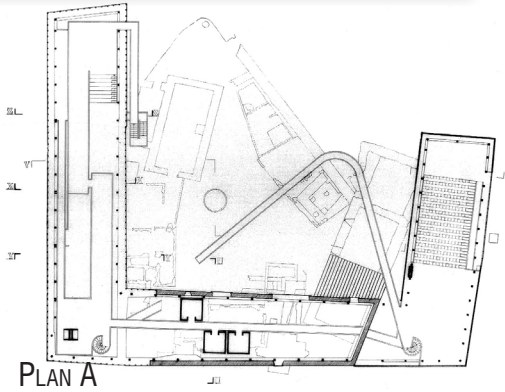
SVERRE FEHN



IMAGES RETRIEVED FROM (LARSEN, 1997)



# CASE STUDY 1

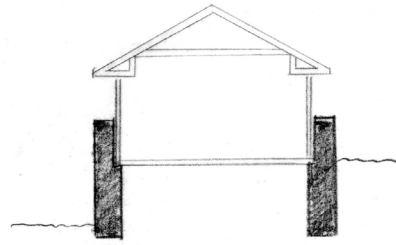
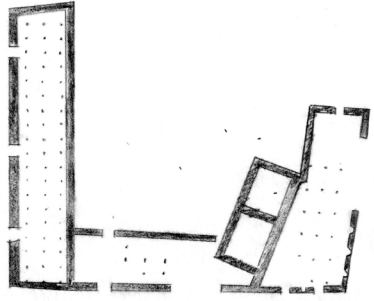


# PLAN

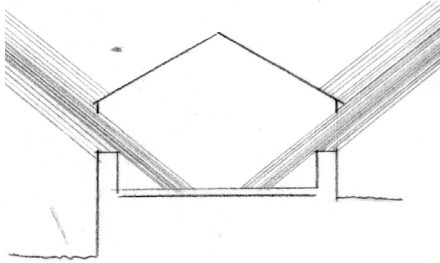
# SECTION B

# ELEVATION A

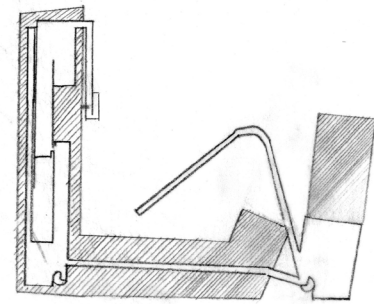
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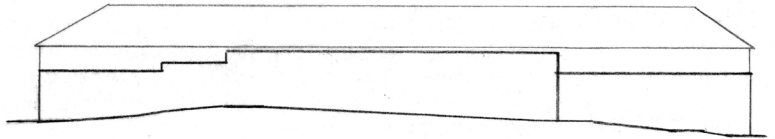
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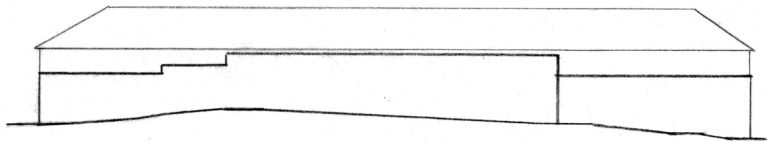
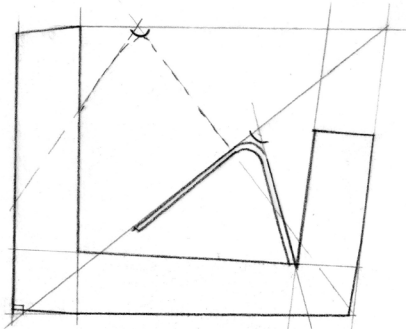
CIRCULATION



MASSING

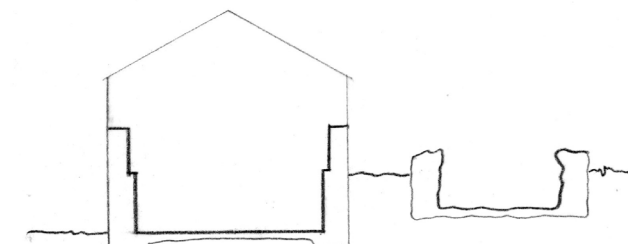
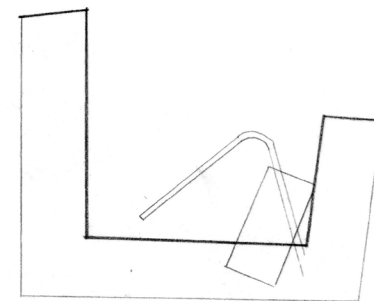


GEOMETRY



HIERARCHY

PLAN TO ELEVATION



# ANALYSIS

The Hedmark Cathedral Museum is built on and among the foundation ruins of the supporting structures for the Hedmark Cathedral. The Cathedral itself is also in ruins and is now enclosed in a separate glass structure. The museum, as designed by Sverre Fehn starting in 1969, takes special care of existing site conditions, such as foundations and topography, to draw visitors through a highly sensorial experience of the site and the history it holds. The building itself adds to the site's sense of place without drawing anything from it.

Characteristic of Fehn, the structure has a minimal yet hyper functional program including major elements, such as long exhibits that flow from interior to exterior, and a presentation theater that uses existing site conditions to achieve seating slope. Supporting elements in the building offer purposeful corridors that always reveal destinations from all directions, restrooms bathed in natural light, large walking ramps for elevation changes, as well as mechanical and storage facilities.

Fehn is an interesting study because of his unique approach to design. His projects were usually selected because of a strong expression of poetics within an honest structure and materials. For example, the Hedmark Museum is constructed from board-formed concrete placed to fill in pieces of the ancient foundation, an interior hand-sewn wood framework to support the two layers of exhibits, and local stone for both the interior and exterior. All of which speak to a time and place, as well as a human element of texture and quality only achieved by craftsmen. Poetically, he uses a single intentional gesture to carry the idea throughout the building. In the case of the Hedmark Museum, the structure of the building is based upon a single bridge foundation carrying the program within the shell. This suggests a delicate preservation of the site (considered an archeological dig), while celebrating its existence by placing it on exhibit throughout the structure. The structure balances upon the single foundation and pulls itself away from penetrating the old build site (Larsen, 1997).

The Hedmark Cathedral Museum is important to the region because it recognizes the Cathedral's travel through time. Built for Bishop Arnaldur and completed near 1240, it was the largest Cathedral in Norway for many centuries thereafter. It was destroyed during civil wartime around the turn of the seventeenth century. It sat for many years as a testament to Norway's struggle for power within itself, but today, stands as a reminder of the



country's resilience and rise from civil war (Larsen, 1997).

The strategies used by Fehn utilize new construction along side preservation and show a deep concern of the implications of construction on a site with unique circumstances. The Museum itself holds lessons in circulation, transition, perception, and scale, all of which can be found in other structures, but these are tailored to a specific purpose of preservation. Also, the use of materials is paramount in the project. As listed before, each material carries significance of time and place, as well as human interaction within it. The museum holds a more conservative form, as seen on the exterior elevations. It also does not seem to give up its purpose or structure on the exterior. It is often described as a large old dairy barn. However bland it may appear, it is rich in purpose and experience.

Conceptually, the Hedmark Cathedral Museum relies initially upon the ruins it is built within. Then, rigorous repetition of structure provides framework for program. Program flows in and out of the structural members to provide a functional experience of the exhibits. Transitions between the exhibits are where Fehn allows all of these elements to collide. The transitions, usually marked by change in natural light, also allow for a resting place and do not rush the visitors' experience into the next exhibit. The arrangement of spaces is such that natural light is allowed into those exhibits that desire to use it, while remaining removed from others.

The Hedmark Museum went largely unnoticed, like many of Fehn's projects. The Hedmark being early in his museum career is often criticized for being too subtle and too sensitive for even a historic preservation project. However, the project seems to handle itself similarly to one walking through a cemetery. While walking among the buried, there is a continual sense of who you are walking on. The site is a burial ground for the centuries of pain and progress the site has seen. The building expresses itself; however, does not impose and overdraw attention to the situation. Subtly, the building tiptoes among the buildings that came before it.

Fehn understood what sense of place was to the project and also knew how to implement it. He was able to understand and respond with confidence that the new building handled itself with poise. He could have done no better than the Hedmark Cathedral Museum.

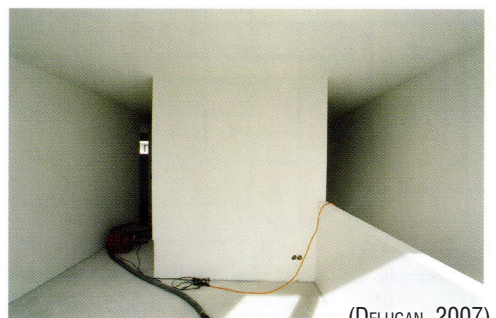
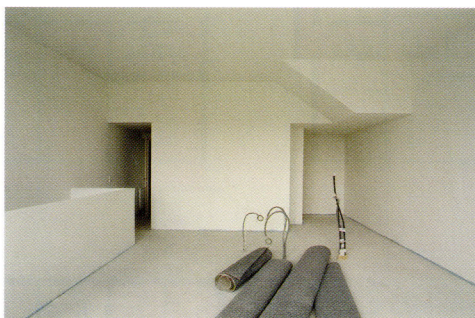
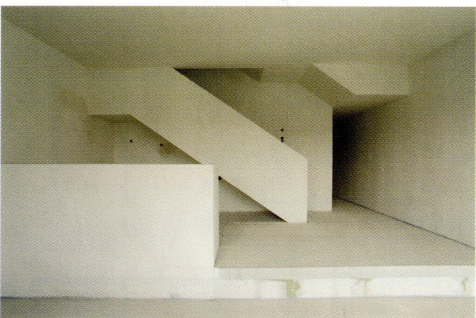
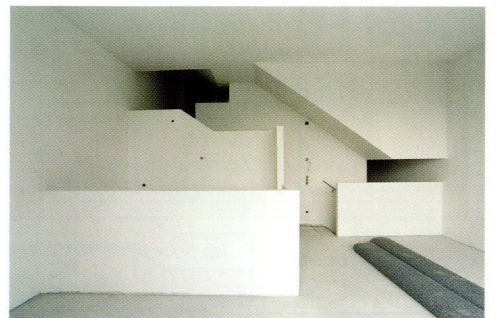
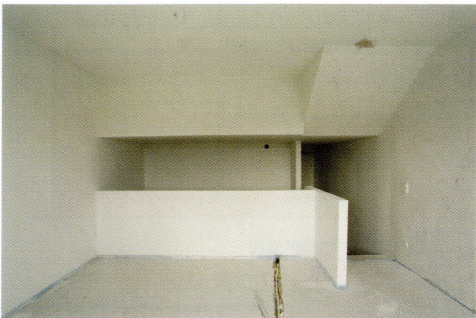
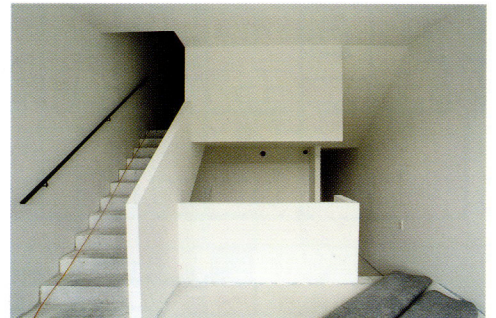
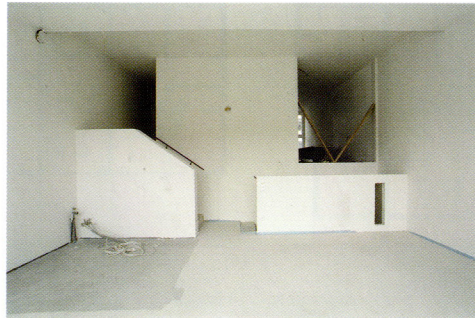
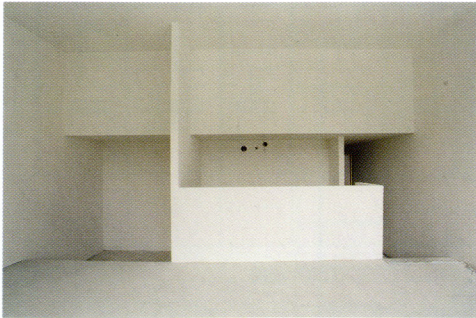
# CASE STUDY 2

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# KALLCO WIENERBERG CITY LOFTS

VIENNA, AUSTRIA  
2004

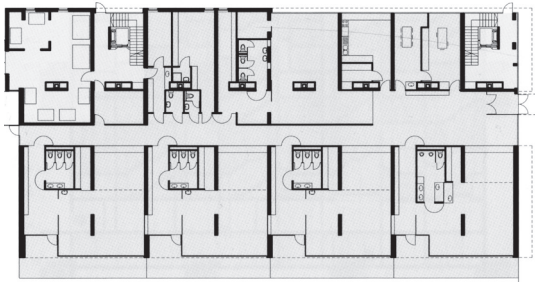
DELUGAN MEISSEL ASSOC. ARCHITECTS  
57,200 FT<sup>2</sup>



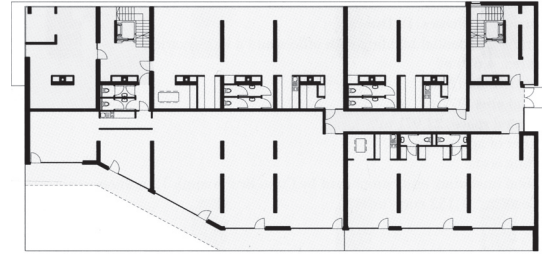
(DELUGAN, 2007)



# CASE STUDY 2



PLAN A



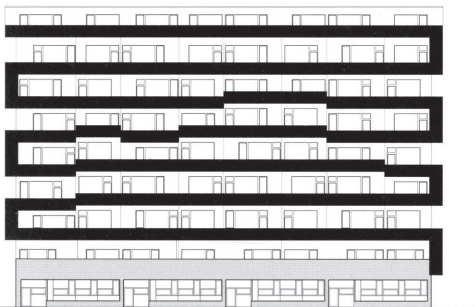
PLAN B



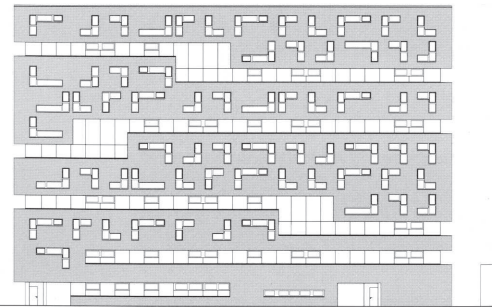
PLAN C



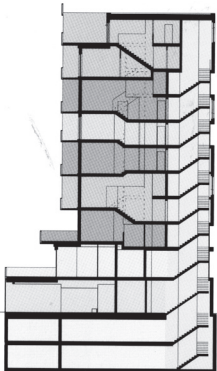
PLAN D



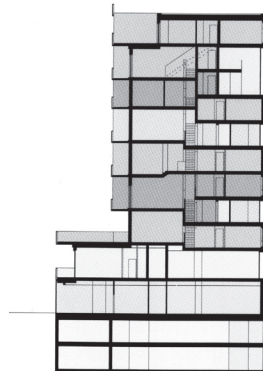
ELEVATION A



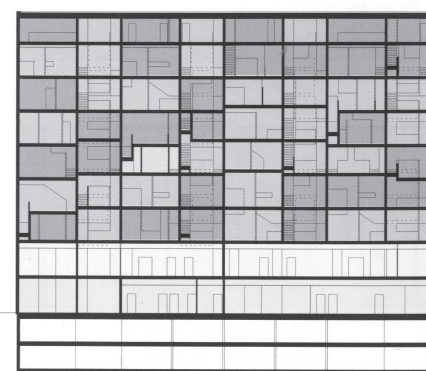
ELEVATION B



SECTION A



SECTION B



SECTION C

PLAN TO ELEVATION

HIERARCHY

GEOMETRY

MASSING

CIRCULATION

LIGHT

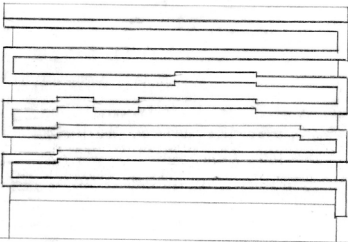
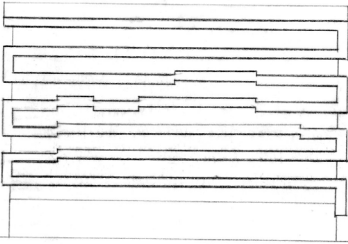
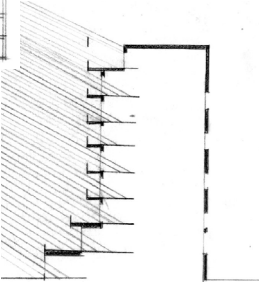
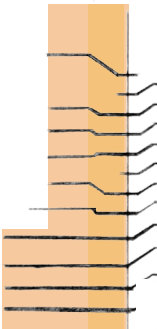
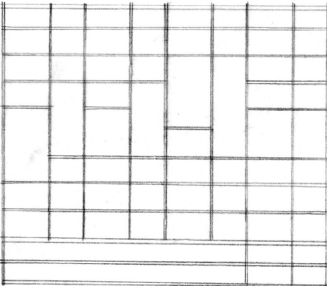
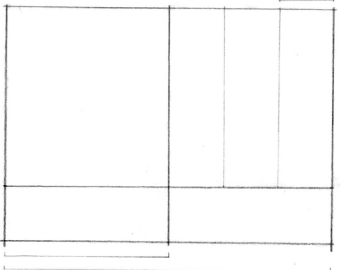
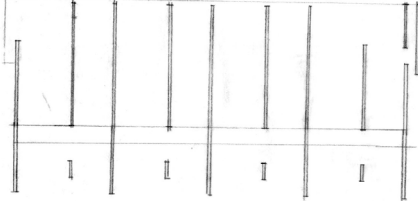
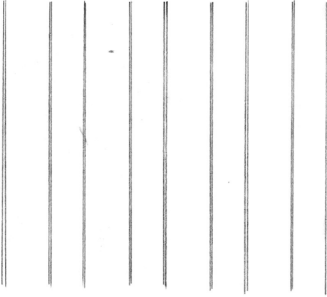
STRUCTURE

PLAN

SECTION C

SECTION A

ELEVATION A



# ANALYSIS

The Kallco Wienerberg City Lofts are based on an urban rejuvenation site within Vienna, Austria. Completed in 2004, the project is primarily an apartment complex with first floor commercial development space. The project is interesting because of the response to a Vienna rejuvenation site (Delugan, 2007). The site is an urban environment with modern construction at all corners and the project fits in nicely with its surroundings but holds a few secrets. The exterior may be modern, but the project is an old idea in new skin. The arrangement of space within the eleven-story building is one of initial confusion and elaborates upon Le Corbusier's Unite d'Habitation apartment complex.

Each apartment has access to both the north face and shaded south face with balconies. The flow-through design, first implemented by Corbusier in the late 1940s, has a host of benefits including natural ventilation, uniform sun access, decreased elevator stops, and greater unit control. It was a ground breaking building, as most were to Corbusier, and is often accredited to sparking the Brutalism era in design. Designed as a functional place or "unit" for living, Corbusier showed the world what rigorous structure, as well as human experience, can be inside this large machine for living. Delugan Meissel and Assoc. took the idea one step further with the Kallco Wienerberg City Lofts.

Instead of the rigorous repetition that Corbusier was so often accused of, DM&A implemented a strategy of iteration of living space or "unit". Each unit is another manipulation on the previous unit. The previous unit could be turned, rotated, flipped, scaled up or down, or even rearranged to reach the next unit. The building developed as each unit used the same set of rules but sought them out in new ways. The units all used the two-level strategy (the same as Unite) as well as a predefined structural party wall system, maintained common programmatic requirements, and symmetrical sun access. The resulting structure is something Corbusier might just be proud of. Each individual unit fits together something like Tetris pieces to assemble the whole, while the symmetric structural party walls interact with every level.

Geometry plays an important role throughout the building. Balance and symmetry hold the building together structurally, as unique building units interact within the structure. Proportionally, the building appears to be a scaled version of a concrete brick; however, the exterior is where that image

stops. Once inside, one cannot begin to imagine the next unit until it is explored. To live in such a place would be an interesting adventure in trial and error, and community.

The exterior's proportions are from the same Brutalistic theory that Corbusier was famous for, by making a mass of concrete and applying program within the mass. Materials are stark, both exterior and interior. Seemingly, one could say the large black band that runs the south facade is not true brutalism and serving an aesthetic purpose. However, the band is functional by serving the balconies with railings as well as sun shading for the apartments below. On the exterior, one does see a sense of confusion in the way the ground condition is addressed. The storefronts are not consistent with the rest of the building. They do not follow the same repetition and structure as the apartment balconies above. They do have expression of structure and mass but do not coincide with the rest of the composition.

Conceptually, the Kallco Wienerberg City Lofts serve as a point about modernism within the city. They show that there is room for reinterpretation in an established structure. The building accomplishes this twofold. both in the small scale of the units interacting within the structure and the large scale of the building interacting within the structure of the city. The building recognized needs and implemented learned strategies with innovation to fill those needs. The strategies used to do this were undoubtedly complex and computer aided. Beyond digital use, it shows that even on the classics, there is room for improvement.

The project was selected because of the treatment of site and use of historical resources to accomplish a new structure. It may or may not serve its purpose any more diligently than its surrounding neighbors, but it does show innovation and place making within urban Vienna. The structural system alone shows rigidity in historical expression and the units do the rest. Of the new buildings in the area, this is considered the most successful both within construction simplicity and usability. It creates a hub of interaction with the large commercial spaces and lofts above. The site was once forgotten in the urban fabric; now it holds its own within the city.

# CASE STUDY 3

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ARTSQUEST AT STEELSTACKS

BETHLEHEM, PA  
2008

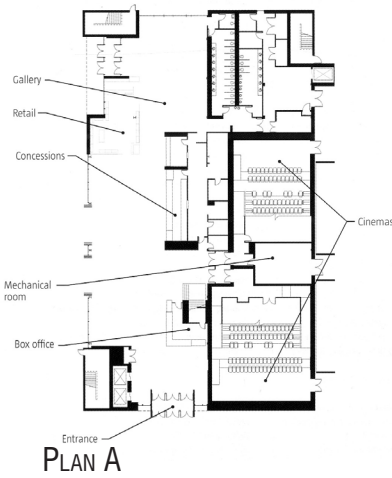
SPILLMAN FARMER ARCHITECTS  
68,000 FT<sup>2</sup>



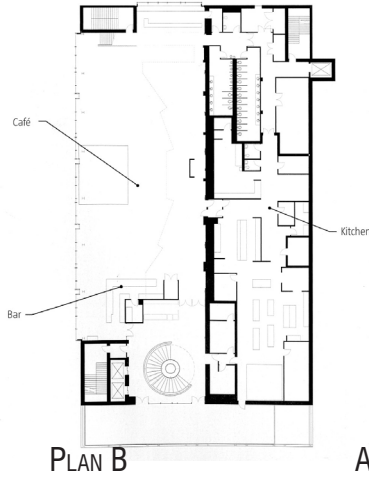
SPILLMAN FARMER  
architects

(SPILLMAN FARMER ARCHITECTS, 2011)

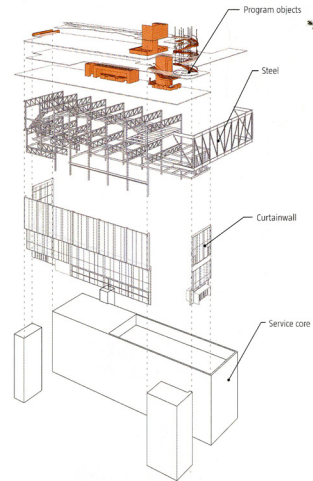
# CASE STUDY 3



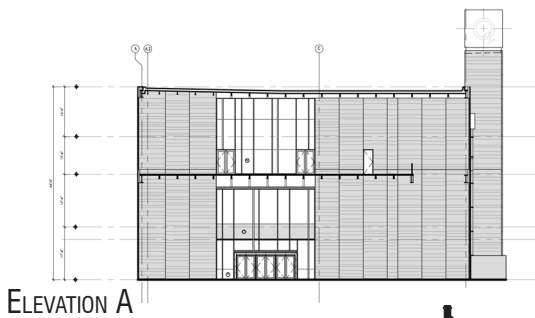
PLAN A



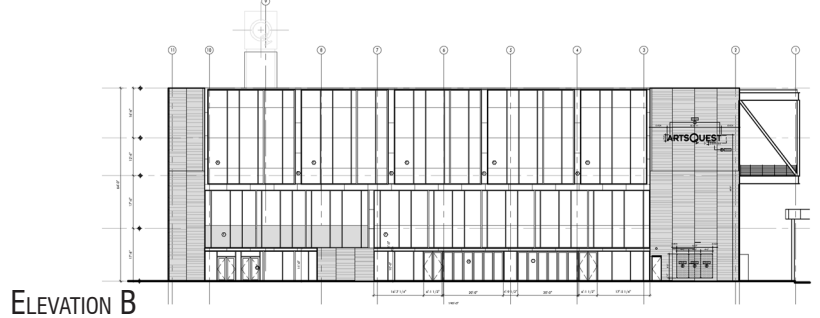
PLAN B



AXONOMETRIC



ELEVATION A



ELEVATION B

SECTION



PLAN TO ELEVATION

HIERARCHY

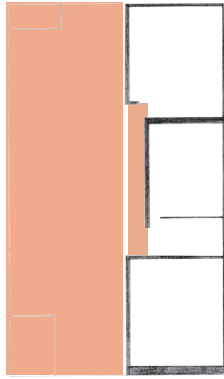
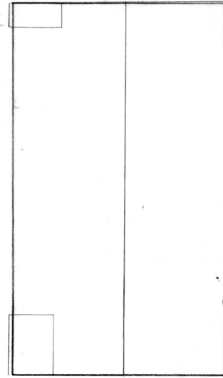
GEOMETRY

MASSING

CIRCULATION

LIGHT

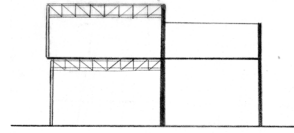
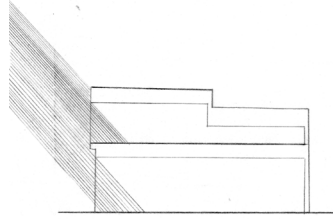
STRUCTURE



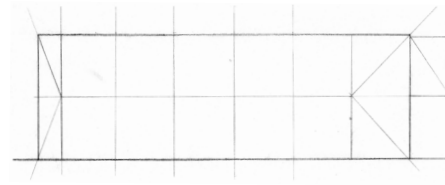
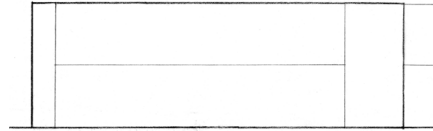
PLAN



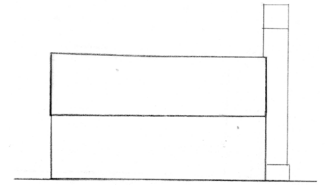
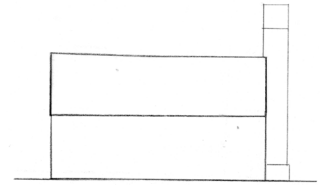
SECTION



ELEVATION A



ELEVATION B



# ANALYSIS

ArtsQuest at Steelstacks is a part of an organization dedicated to the performing arts within the local setting. The facility is a place for the community to create, showcase, and participate in the performing arts and related fields. It is located in the old Steelstacks region of Bethlehem, PA within the retired steel manufacturing factories. The Steelstacks are what made the town of Bethlehem prosper from the 1950s to 1990s (Volner, 2011). The town, consisting of mostly blue collar workers, needed an art centered facility grew as the factories slowly ran out of production. The new ArtsQuest Center has recreated the area into a vibrant cultural center for the city.

The structure itself holds a deep meaning to the site. It is built of structural steel and precast concrete, the same steel that would have been manufactured across the street. All of the structural steel is coated in an iconic orange color to emphasize the use of the structure throughout. Within the steel structure are a variety of spaces dedicated to showcasing art from the area. All of which are arranged to hold a large number of people at once. The 68,000 square feet of space is designed to hold two theatres, a café, two exhibit halls, a reception hall, and bar. These all act together to serve the community as a state of the art cultural center.

The structure of the building holds the significance of the composition and speaks directly to the historic and blue collar workforce in the area. The theatre areas and the service facilities for the café are held within a concrete rectangle the entire height of the building. The primarily board textured concrete was precast into manageable sizes and trucked to the site where they were erected in place. The steel structure that holds the large expansive exhibit and reception halls is braced off of the concrete and provides rhythm throughout the public areas (Volner, 2011).

Expression of the structure is also reminiscent of the surrounding buildings and those that stood on the ArtsQuest site. The form shadows the functional framework of the steel houses once so abundant. The steel frame is also detailed in a way that the connections from the different members are reminiscent of the techniques used previously. Proportionally, one would think a building of this size would be easily dwarfed among the expanses of cooling stacks and steel kilns; however, it holds a prominence within the empty buildings to achieve a unique sense of place.

The existing rusted boiler stacks, catwalks, and cooling lines that make up the area serve as a fitting backdrop to performances and festivals for the city. Celebrating where the city was produced has a powerful effect on those that take part in it. The factories also serve as a powerful reminder of new progress. The complex only has half of its original building standing, due to lack of maintenance. Parts of the complex have been removed to provide casino opportunities and shopping areas.

The project was selected for the programmatic uses. The close relationship of structure and space, as well as movement throughout, shows efficient design. Efficiency also carries into the structure itself, acting with a select few materials to accomplish all the details. For Spillman Farmer Architects, this is their goal as designers of public buildings. They are proud to use efficient “off the shelf” pieces to accomplish poetic yet functional design.

The functional design may seem the opposite of a facility dedicated to inspiration, but the building takes another lesson from the old steel stacks. The stacks were unable to run and produce without the people inside. The factory was a mere facility to supply the workers with the tools needed. Functionality was paramount, and it served the town well. ArtsQuest does the same. The facility is a place where the people create art. The building takes a step backward and facilitates the work of creativity. It merely supplies the space for performances; it doesn't take anything away. At the morning bell when the workers arrived, the steam started to billow from the stacks. Today, the morning bell starts the hard work of local artists in the ArtsQuest.

Bethlehem, PA also serves an important parallel with another blue collar town, Detroit MI. Similarities abound in the factory economy that supported the cities industries for so long. With the lifestyle came a typology of building and techniques. Structural steel was the favorite framework to build with for its efficiency and price. It was a specialized craft and it took specialized workers to handle it. Today efficiency is measured by the hundredweight and buildings are treated as erector sets. It is important to acknowledge the use of industrial materials and express what they mean to the place and to history. Spillman Farmer does just this with the ArtsQuest Center at Steelstacks.

# CASE STUDY SUMMARY

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The series of case studies were chosen for three different purposes, each with a specific relationship to the thesis. Even though each project is unique in typology and therefore program, they all play an important role in the research for the project. The lessons learned from each provides framework to build theoretical conclusions within. They are from different regions of the world and hold a specific sense of place in each. It is important to note that without the significance each holds for the location it is built within, these are merely shells of efficiency in building. But, because each creates a place within its respective site each becomes more than orderly materials; each case study becomes notable and accomplished in both the architectural perspective and the public eye.

Case Study One, or the Hedmark Cathedral Museum, was chosen because of its specific attention to both new construction and the historical context it is placed within. Sverre Fehn was well connected to the region having been born, raised, and educated in Norway. He understood the implications of constructing on such a rich heritage site- the ruins of an eleventh century Catholic Cathedral which was later destroyed by civil war. The Museum responds well to the situation with specific and controlled gestures. The building, having a limited pallet of local materials and a limited pallet of poetic expression, makes the Museum fluent in the local customs and becoming important to the site. For example, the hand sewn timber structure within is detailed with connections from the same era as the Cathedral. The rafters are minimal yet distinguished much like Norwegian homes built with trial and error over the centuries. These techniques of local inspiration prove effective when transposed into a building dedicated to paying homage to a time long gone. It would be hard to imagine the site without the long horizontal lines of the Museum providing backdrop to the ruins of the Hedmark Cathedral (Larsen, 1997).

Case Study Two, or the Kallco Wienerberg City Lofts, was chosen for the reinterpretation of Le Corbusier's Unite d'Habitation. Arrangement of space was iterated to create a varied solution within a regimented framework of guidelines. Structure of the entire building and flow through design of the individual lofts were both ideas borrowed directly from Corbusier's Unite. However, each unit was iterated from the previous with a variety of moves to create a collaboration of space similar to Tetris. Each unit still abides by the set of guidelines set out for the project, but each is different in their own way. Exterior and interior materials are extremely mute, either being white



or black, adding to the Corbisier idea of Brutalism. The project lends itself to being an important study on use of space. The units were designed for residential lofts, but the same techniques can be applied to other typologies, such as office space or small scale commercial (Delugan, 2007).

Case Study Three, the ArtsQuest Center at Steelstacks, provided lessons in both efficiency of material usage and programmatic arrangements to handle public circulation. The building itself is within the former steel industry headquarters of Bethlehem, PA and is dedicated to honoring the industry that made the city prosper for decades. This project also has a previous sense of place imposed onto the site prior to being built. However, instead of treating the site as a place of immortal preservation, the ArtsQuest center seeks to bring the site to new purpose in the future. This vision of sustaining into the future is just as important of preserving a cultural heritage site. ArtsQuest has provided a new purpose to the Steelstacks area by making it a place for the celebration of arts throughout the community. The physical connection to the area is obvious with the structural steel, the same steel that was made across the street decades earlier, precast concrete from a local plant, and expanses of glass from the area. The form is also reminiscent of the common storage sheds standing on the site previously. It all comes together to create a meaningful place for the local area to celebrate (Volner, 2011).

All three studies have shown in different ways how the pieces of space arrangement, structure, and site usage come together. More importantly, each site is important in the setting it is within. The buildings serve more than just the program inside, they provide the program in poetic expression unique to the location. Lessons from each illustrate the need for local design and implementation, and sensitivity to location. The significance each holds to its respective site shows a higher level of design from the ground up. Each building has its own typology and purpose yet all three share in their ability to create “place.”

The case studies will impact the thesis process by focusing design intention on specific lessons. The project will benefit from positive examples of built structures that relate not only programmatically but also physically.

# HISTORICAL CONTEXT

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Detroit Michigan is a city with a long and difficult history, beginning from the Native American colony being invaded by settlers from the east. The area of the Detroit River, the body of water connecting Lake Michigan, Huron, and Superior, has always been an important site for natural resources. Copper mining and iron ore extraction has taken place in the area commercially since the early industrial revolution. Exports and imports have always been important to the port town, and, with the completion of the St. Lawrence Seaway in 1959, it was opened to larger and more efficient shipping around the world. Production went hand in hand with the shipping of goods, and Detroit has had a long legacy of manufacturing spanning from wartime shipbuilding to the Big Three automakers. Detroit has always been known as a town for the blue collar worker. Success with one's hands and the power of the workforce has been a cultural underpinning spanning Detroit's legacy. Unlike its neighbor, Chicago, which presents itself as a political power in the Midwest, Detroit's political history has been anything but powerful.

Manufacturing is what put Detroit on the map. From the 1925-1930, Detroit's population swelled 53% because of the booming manufacturing economy. A city that was initially modeled after Washington D.C., Detroit grew almost at will with little regulation in the early years (Woodford, 2001). Manufacturing in Detroit was also different than anywhere else as well. Unskilled labor could find sufficient work on any assembly line in Detroit; whereas, in New York one was either forced to work textiles or somehow become educated enough to work shipyards. Detroit had its arms open to the world at this time. The roaring twenties saw immigrants from Canada, Ireland, Germany, and as far away as Asia come to its promising assembly lines and entrepreneurs. Unions were also gaining strength. They pulled political power from the workforce and were also supported by many politicians. Over the years, labor disputes have been the black mark on Detroit's otherwise smooth manufacturing industry (Woodford, 2001).

The Stock Market Crash of 1929 took no exceptions throughout the country. Detroit was hard hit, specifically for its manufacturing investors. Plants were shut down, people laid off, and labor unions busted. The once booming city had catching up to do. Investment into infrastructure, extravagant buildings, bridges, and sporting arenas did not take care of the thousands of line workers that were without homes and were getting paid half the daily wage as the previous year. The gap between the extravagantly rich and the poor was growing – quickly. Soup kitchens could not keep up with the influx of



people, crime was spreading, and schools were shutting down from funding cuts. The politicians, businessmen, and entrepreneurs that made the city what it is were to blame. The United Auto Workers union was founded in 1935 and faced harsh push back from the manufacturers – sometimes escalating into bloodshed. Then when wages could not be cut any longer, the United States decided to enter WWII (Gavrilovich and McGraw, 2000).

The war production for WWII was in high gear by the beginning of 1942. Bombers, tanks, ships, and military vehicles were all being produced by Detroit's finest. The workers now had production numbers back up, but the wages were slow to follow. This coupled with rising discrimination, both of race and sex, the tensions proved to be a volatile interaction. Housing was slim before, but with the influx of workers from the south it was gone. Workers were often forced to leave facilities because they were trying to sleep in the factories. The city was turning a blind eye to public housing integration as well as the discrimination within the workplace and housing. Organizations such as the Klu Klux Klan were gaining in strength and becoming intertwined in government. In 1943, the tension burst. June 20, 1943, started a three day race riot where 34 people are killed. Martial law was declared, and the military was used to subdue the riots (Gavrilovich and McGraw, 2000).

The riots of 1943 were just the start of the race tension in Detroit. The city has a long history of being battling grounds for issues like equality in the workplace, equal housing, school reform and labor issues; most of which stem from race relations (Woodford, 2001). Throughout the 40s, 50s, and 60s Detroit first ignored, then refused, and finally granted racial equality. Political unrest and investigation took over in the mid 1960s with huge financial deficits and public service layoffs leading the issues. Police forces were barely able to hold onto the city throughout the 1970s and 1980s, and the suburbs went nearly without any police force for much of the 1970s. The 1970s were also hard for the auto manufacturers as the influx of foreign, fuel efficient cars flooded the marketplace. Unions struggled for power, and automakers struggled for sales led to many layoffs throughout the area. Crime and drugs ran wild while the law enforcement were preoccupied with political scandals. 1976 marks the lowest point in the city of Detroit. It was true lawlessness with gangs being the only control of the area (Gavrilovich and McGraw, 2000).

The rebuilding of Detroit started slowly, and continues to this day.

Automakers are still struggling to stay competitive in a shrinking market, but those industries invested in the area are in Detroit to stay. The city is cleaned up, albeit abandoned, but safe for visitors. Building is happening slowly across the city, but people are leaving quickly. From 2000 to 2010, Detroit's population shrank 25%. (P. Gavrilovich & B. McGraw (Eds.), 2000) Massive job loss, rising taxes and social instability is making it hard for people to stay. The suburbs are the hardest hit. Houses are becoming abandoned at an alarming rate property values are plummeting. Political reform is starting to take hold, but it is little too late. Reports have said the city of Detroit will file for bankruptcy by the end of 2012 (Gavrilovich and McGraw, 2000). Locals are hoping for it to be a new beginning for the city.

### The Lafayette Building

The Lafayette building at 144 West Lafayette Boulevard was among good company when it was completed in 1923. The city was booming and people needed office space. The building was designed by C. Howard Crane, a popular theatre designer. The Lafayette was there for new lawyers, bankers, private detectives, dentist, or any other professional that needed a place to practice. It shared sunshine with the Cadillac Hotel for decades. Designed by Louis Kamper and opened in 1924, the Cadillac was the pride of Detroit's hotels during the 1920s, 1930s, and 1940s. Stately buildings such as the Ford building built in 1909 by Daniel Burnham and the Dumouchelle Building, built as the first automobile showroom, in 1902 are all in the neighborhood of the Lafayette (Hill and Gallagher, 2002).

The Lafayette building itself was reminiscent of the Flatiron Building in downtown Manhattan because of the way it filled the site. It occupied a triangular site and had two converging wings with an atrium in between. The atrium allowed easy ventilation to both towers. The exterior was classical in style with a limited palette of materials, mostly brick and terra cotta. Little ornament was used on the exterior besides the marble affixed to the first floor facade. The interior however, was among the grandest in Detroit. The entry lobby possessed rich hardwoods and true marble support columns. The skylights bathed the entry sequence in natural light, as the polished brass hardware shimmered when the doors opened. The building was constructed with a structural steel skeleton, like most buildings of its height in the day. The exterior walls were non-load bearing, which also helped with the large window openings for all thirteen stories. The offices were luxuriously sized

and oftentimes contained running water, a rare commodity in Detroit at the time (Hill and Gallagher, 2002).

Starting in the 1920s, the Lafayette was the office building professionals wanted to be a part of. It was off of the car infested Woodward but had a strong presence on Michigan Ave. It was easy access in a vibrant neighborhood. Restaurants, hotels, and theaters were all a short walk away from the grand entrance on Lafayette Boulevard. People were excited to be a part of the most modern office complex in Detroit. It had state of the art elevators for easy access, great ventilation, and boiler system. The building stood throughout two and a half boom-bust cycles of the city around it. It, sadly, did not see the new Detroit rising from the ashes. The Lafayette itself was not immune to the cycles the city experienced. It too went through multiple owners, tenant hardships, renovations, and finally demolition.

The building slowly lost tenants through the depression, but gained almost to capacity during WWII only to start losing again to the suburban developments. It came into new ownership in the mid-1960s and went through extensive renovation in the late 1960s. The hand painted plaster was gone and replaced by thin veneer wood paneling. The entry lobby lost its hardwood to more modern sheetrock and storefront. Windows were downsized to control heat loss. Walls were removed to create large expanses of cubicle space. All of these changes were common for the era and they worked. The building filled back up and was profitable for a few years after. The last straw fell in 1997, when the building was closed. There were only a handful of tenants and upkeep was falling far behind.

The building fell into the possession of the city of Detroit, which tried to gain interest for redevelopment into a new center for business. Multiple attempts during a threatening economic downturn led to interest but no investors. Finally, in 2009, demolition started. The final piece fell in February of 2010. A long history fell into that rubble in downtown Detroit, a history of rise and fall, power and demise, and glory and defeat. Standing in the place now is a public garden space commissioned to prevent the lot from becoming parking. A new vision for the historic site has yet to come forward, and for the time being, it remains a hole in the urban fabric of Detroit (Hill and Gallagher, 2002).

The Lafayette left a powerful impact on the people of the area; many of

whom tried valiantly to save the building. Social networks such as Save the Lafayette were widespread to help raise awareness of losing such an iconic figure. Video footage shows the building putting up quite a fight to resist falling down. The demolition took much longer than expected and is a testament to the quality of construction invested in the buildings from the era.

### A city for all

Detroit has been to many a city of opportunity. Entrepreneurs looking to create new business, laborers searching for quality work, and politicians trying new legislation techniques to make it all work together helped shape Detroit into what it is today. Throughout the centuries of the city's developed history, all three have come and gone, but the spirit of Detroit as a place where new ideas can become reality will always remain.

Entrepreneurs and businessmen from all walks of life have invested time, money, and energy into the network of Detroit. People like Thomas Edison, Henry Ford, Don Barden, and Mike Ilitch all made their fortunes in the Motor City. From the auto industry of Henry Ford to the pizza industry of Mike Ilitch, opportunity came quickly but not without a fight. Multiple attempts, success and failure of products, and the always present labor unions had to be overcome. Constantly moving political targets added to the complications while race relations became the largest obstacle for black entrepreneurs.

Detroit has illustrated the country's best intentions with the worst implementation. Of all the problems Detroit has faced, race relations are the most difficult to understand. Over the years, the city has welcomed anyone who was willing to work, regardless of race. However, the city posed the most resistance to eliminating segregation and providing equality. Most point fingers at political administration during the 1960s or 1970s. Regardless how the resistance was upheld, it left a lasting impression on the city and surrounding communities (Woodford, 2001). Segregation of housing being the most evident consequence, it plays a pivotal roll in today's Detroit by providing grounds for gang related crime. Also, the government's liberal position on social reform has run the city into the red for nearly a decade. From the labor unions to healthcare, the government was more in favor of making a popular choice than the one best for the future of Detroit.

Detroit today is a hard investment. It is difficult to ignore the current state of the city. Dilapidation, abandonment, and disrepair are taking over many of the buildings that once made the city grand. Infrastructure is deteriorating from years of neglect and abuse. The suburbs are fighting to sustain themselves and connections are being lost to Detroit. The city is now a place that is commuted out of, not into. Much of the attraction to the city is based on sporting facilities and entertainment; quite the opposite of what was strived for before. The envy of public schools now has a graduation rate that is the lowest in the country. This escalates tensions between class and race. Schools are being consolidated, cut back or shut down outright across the metro area.

Many feel the answer for Detroit is neither automaker buyouts or stimulus packages. But the public feels a time for change, a time for investment in something new. A time for a new direction and new leadership. The existing infrastructure of factories and material mills still have the potential of creating progress. Detroit has the ability to be a leader again in innovation, education and industrialization. Detroit just needs an industry to take it to the top.

Detroit does have promise among the problems. The promise is the people of Detroit. The residents are committed to preserving what is left and creating a new center for business and community. Detroit has a rich history that holds a story of self worth and hard fought rights. A future that is sure to continue through the diversity.

A *New York Times* editor wrote of Detroit in 1934, "Paris dictates a season's silhouette, but Detroit manufactures a pattern of life." (Gavrilovich and McGraw, 2000). This may have been exceptionally true in 1934 when the city was first feeling the grips of the Great Depression, but today, Detroit still manufactures its life. It holds its own ability to create for itself a new beginning. There are not many industrialized cities that have the ability to start from the beginning; rebuild what is needed, and discard what is not. Detroit: a city of manufacture.

# PROJECT GOALS

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The purpose of the project is to study sense of place as a phenomenon, and determine how that applies to both a structure from the past and a structure in the future. The project exists within primarily three different realms of study: the academic, professional, and personal, each with individual goals.

## Academic

Within the academic realm of educational research the project seeks to study what sense of place is to students or visitors of a site. Is it something one can find in a historical summary, local interviews, or photographs? How does one study or find examples of sense of place? Moreover, does every place have a sense of place? All of these questions are to be investigated and employ architectural means to find solutions to.

The project also sets out to achieve recognition of Architectural Masters by the Department of Architecture and Landscape Architecture of North Dakota State University. To achieve this, graduate quality investigation, presentation, and production materials will be engaged throughout the thesis process. Upon completion, the thesis will serve as a resource for the University and surrounding community. The project strives to illustrate what sense of place is and means to architectural education.

## Professional

Within the professional realm, the project strives to establish validity and prominence as a resource for future research into sense of place. Sense of place is largely determined by the professional field, as buildings are designed and built in the professional realm. With the promise of each project, the architectural firm holds in their hands the ability to shape anyone's experience that engages the project. A firm also have the ability to leave a lasting mark in that person's memory of what the site meant or felt like to them. Granted, most projects are built for progress and define a new sense of place. But what is the consequence on the sense of place by constructing a building on a historical shoreline or on the site of a recently demolished theater? What is the value of the new construction

within the historical context?

Professionals do manipulate sense of place with every project constructed. The thesis will provide information on techniques to not only manipulate, but create a sense of place that positively impacts the area. In essence, the thesis will provide techniques to make “place”.

### Personal

Within the personal realm the thesis seeks to provide a meaningful assembly of thought, research, and production to illustrate abilities and interests acquired while studying architecture at North Dakota State University. The thesis will present the culmination of five years of study and dedication to the field. It will mark a time of transition from education to professional experience. It will serve as a reference to future employers of my abilities as a designer in all aspects of the word.

Specific goals include creating a body of work that satisfies the need to understand what sense of place is and how sense of place applies to each place and person. Also the project strives to produce an accurate image of what I, as a designer, wish to pursue in the profession.

All of these goals are to be accomplished within the realm of the thesis project as a whole. No one specific piece will achieve a goal by itself, but the culmination of the pieces working together will fulfill a goal entirely. The purpose of the project, to study what sense of place is as a phenomenon, will be accomplished similarly, through a culmination of the pieces of the project, not by one alone.



# 144 WEST LAFAYETTE BOULEVARD



(Liger, 2009)



# SITE ANALYSIS

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QUALITATIVE SITE ANALYSIS  
SITE OBSERVATION  
PLACE  
QUANTITATIVE INFORMATION



# QUALITATIVE SITE ANALYSIS

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The initial introduction to Detroit was by car, the only way to experience Detroit. At two a.m., the first drive down Michigan Avenue from Dearborn, MI was as eerie as one would expect in a city running out of money and time. The only open doors were local bars and abandoned buildings. The homeless were looking for places to call home for the night, and the city was quiet, despite its vibrant skyline light display. Inside the car, we had fallen silent in awe of what we were witnessing. The largest street within a major city was dead, except for four tires carrying three strangers into an unknown urban jungle.

We did not dare to stop on any of the streets within the city to take a look around; the place was too deathly silent. Black windows were looking at us from the immaculate stone buildings all around. All three of us were glued to the windows to fulfill our curiosity. We drove by the specific site where once a gem of Detroit once stood across from the swankiest hotel in Detroit. Now, a new public garden is sandwiched by two parking garages across each street temporarily holds the place until a new purpose is found for the triangular site.

The next visit to the site revealed surprising revelations about what the city meant to the public. Walking from a local skating rink just a block away, surrounded by the annual Detroit Winterfest, the mood was light, as was the day. The sun had found its way through the clouds, and it was a mild forty-five degrees. People were out and enjoying the weather. The city square holding the festival was packed, as people walked through a market full of local products; the skating rink was flowing with children and couples trying not to fall. It was puzzling to see such an apparent joyous festival within a city that has for all intensive purposes become bankrupt and fallen into disrepair. Not that the festival did not seem as though it was appropriate, but the perceptions of the city by local media make apparent the difficulties the city is presented with and its residents are living through. But those simply weren't there. It was a hopeful sight to see that the city can still celebrate.

The site being located less than a block from the celebration has a great opportunity to interact with the festivals. The current use of the site is a public garden dedicated to raising produce for the nearest food bank. The site was funded by local investors to make sure the site is maintained and does not become another asphalt parking lot. The block, or rather triangle, the site occupies is shared by two of the most recognizable restaurants in

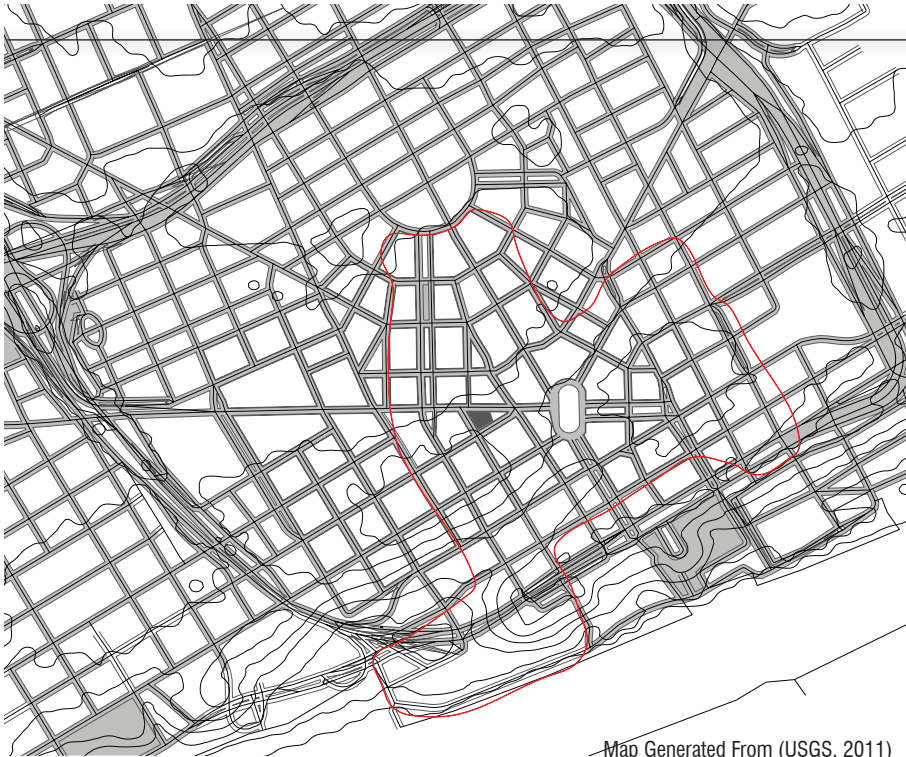
downtown Detroit: the Lafayette Coney and American Coney. These two have been locked in battle for decades about who has the best coney dog in Detroit. Also, a local hat shop and current empty storefront building being renovated as a bar occupy with the Coney duo a mere third of the site. The other two-thirds was occupied until 2009 by the Lafayette Building, a fourteen story office complex, until it was condemned and demolished for public interests.

While walking around the neighborhood, it was clear that the area was falling apart. Abandoned buildings were starting to show signs of age and disrepair and only a select few locations, such as the Cadillac Hotel, were upholding their previous presence. The new additions to the area are two new parking structures that replaced abandoned office buildings. The newest, having empty provisions for commercial locations on the ground floor, threatened the Lafayette site by showing a seemingly guaranteed destiny. Even though the site is on the largest thoroughfare in Detroit, the neighborhood looked as though it was becoming an alleyway of parking and dilapidation.

With all of the surrounding presence of the site, it is a diamond in the rough. The site is within short walking distance of the People Mover transit system, the shoreline, and the city center and has plenty of close parking. View sheds of the skyline show through the converging street corridors, and historic neighbors hold the shrinking culture together. The nightlife in the area is well lit and protected on all sides.

From conversations with locals, we found that, even with all of the media hype of bankruptcy, crime, and political problems, the people have hope. They have hope that their city will rise again, like it once rose, on the backs of the people. Local bars, art centers, musical venues, public parks, and entertainment venues are springing up all over the city. People have an obvious responsibility to grow Detroit, and they are eager to take the challenge. Of all the conversations, one sticks out from a local project manager, "We already hit bottom. The mayor is filing for bankruptcy as we speak. Where do we go from here? Forward." The owner of the American Coney has been in that location since 1954. He is not about to leave and neither is the rest of Detroit.

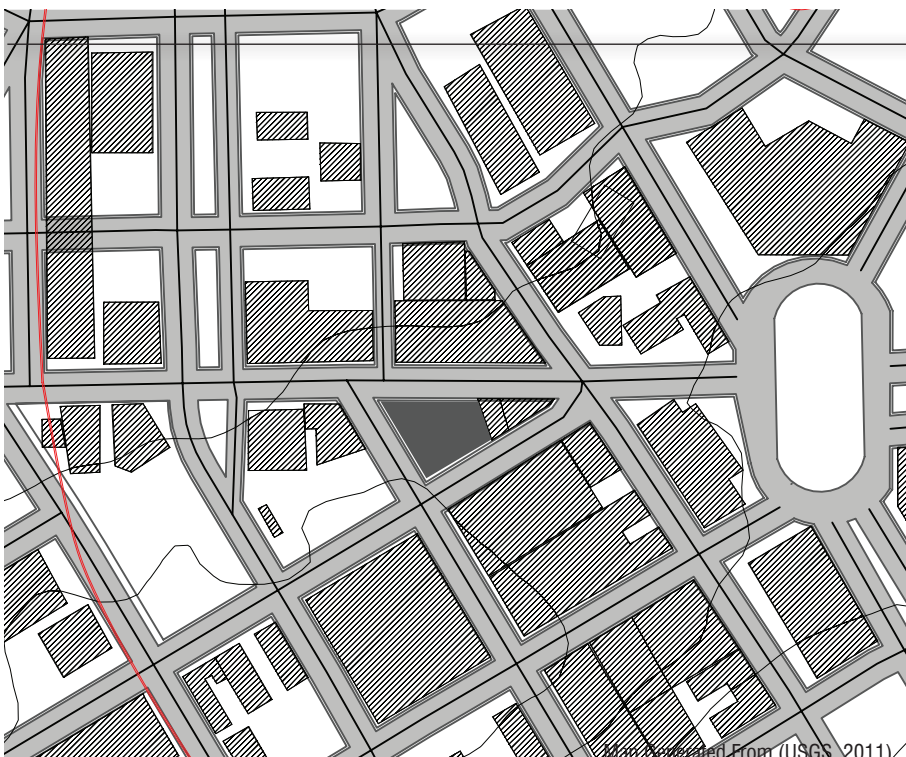
# OBSERVATION



## EXISTING GRID

Detroit's city plan is generated from the early plan of Washington D.C. With converging thoroughfares and grand circuses, Detroit was thought of as the new capitol of the industrial world.

The People Mover, an elevated light rail system, connects the city with efficient transportation. The entire loop takes merely fifteen minutes to complete.



## DENSITY

Building density within the city center is deteriorating. Within one block of the proposed site, two buildings have been replaced with large parking structures. Paved parking lots are also becoming more common.



## LIGHT QUALITY

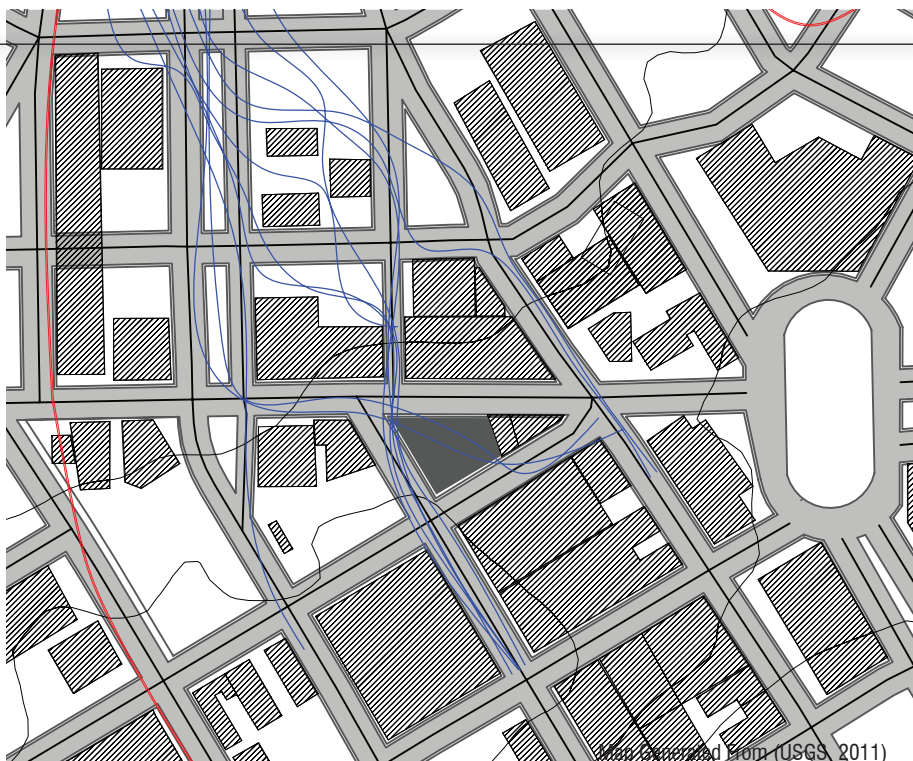
The site has a filtered light quality during the day due to the usually overcast sky.

Nighttime holds a dramatic difference to the day. With bright white street lamps, the site is covered in consistent soft light to provide security.



## WIND CURRENTS

The prevailing winds for the area strike from the north west. However, the surrounding context of buildings and wide street corridors accelerate micro winds across the site.



# PLACE



## HUMAN INTERACTION

The site once held a fourteen story office building known as the Lafayette Building. After demolition in 2010, a public garden was created to prevent the site from becoming an asphalt parking lot.





## DISTRESS

Surrounding buildings are left vacant due to the economic situation of Detroit. While some are slated for renovation, some will remain empty until demolition.

The corner detail that once connected the Lafayette Building with its still standing neighbor.







## INFRASTRUCTURE

The site maintains its utilities from the previous building. Water, sanitation, electricity, gas, and steam lines all run to the site.

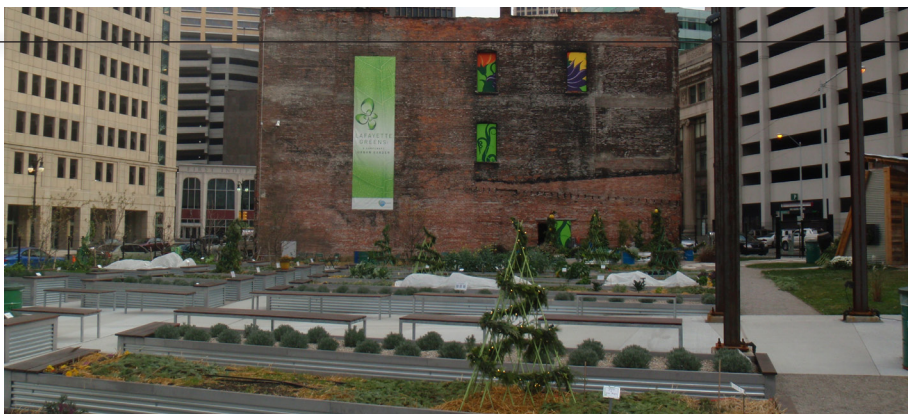


## VIEW CORRIDORS

Two main view sheds exist along the bordering streets: Michigan avenue to the north and Lafayette boulevard to the south.

## SITE CHARACTER

The site holds a variety of character. The battling Coney restaurants both provide local interest into the area. Texturally, each building on the site is unique in character.



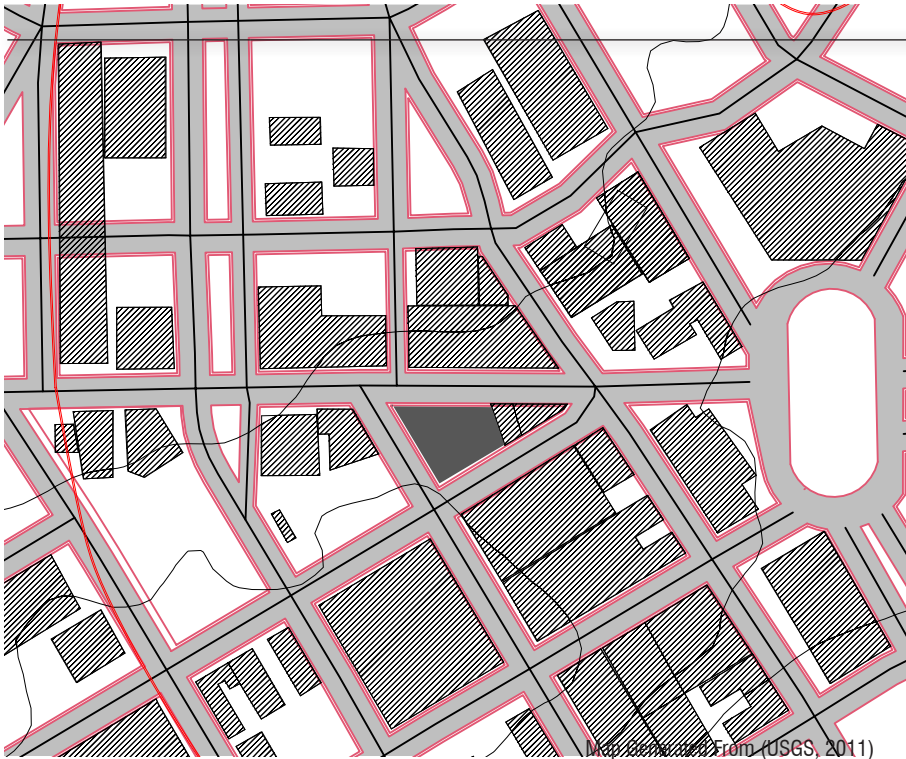
## SITE CHARACTER

The public gardens, seen here as gated at night, are a tool investors saw to create more local investment in the area. When efforts for business development failed, the public gardens were introduced.



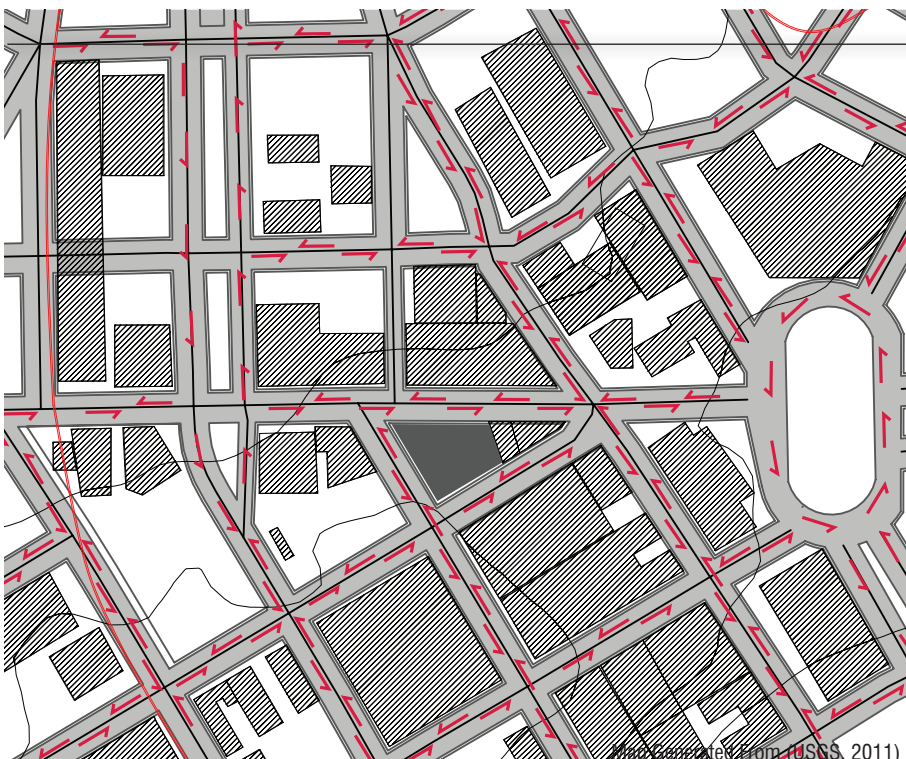


# QUANTITATIVE INFORMATION



## PEDESTRIAN ACCESS

Pedestrian access is provided all throughout the city grid. Ample, well lit walkways are on nearly every corner. Also, the People Mover is within two blocks of the site.



## VEHICLE ACCESS

The Motor City was developed as just that - a city for the automobile. Each thoroughfare is graced with multiple lanes. Traffic is relieved by an abundance of traffic lights throughout the city.

## SOIL CLASSIFICATION

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Agricultural Classification

Order: Alfisols

Suborder: Aqualfs

Great Group: Cryqqualfs

Subgroup: Jab

Engineering Classification

Loam, Silty Clay Loam

## TOPOGRAPHIC SURVEY

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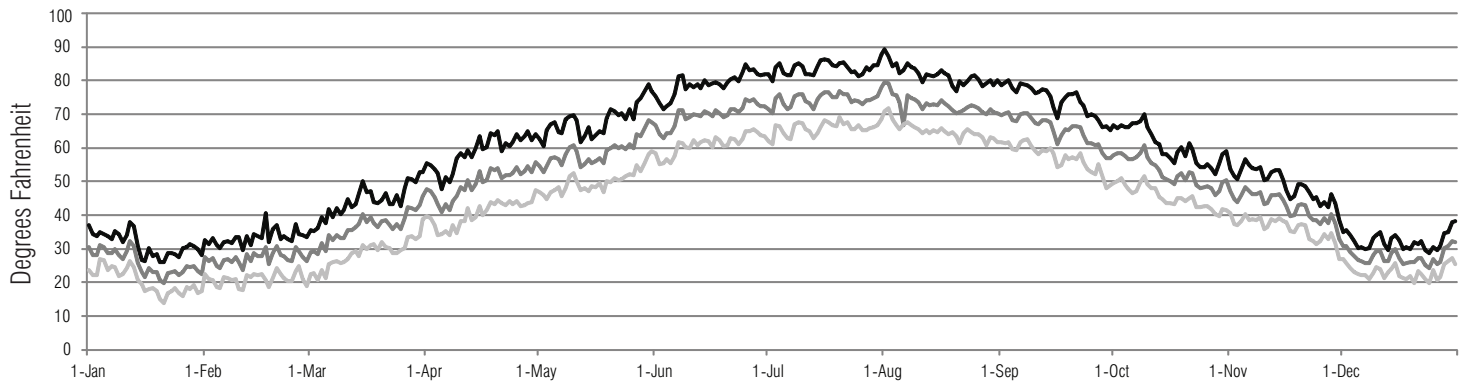
The Michigan Basin flowing into the Detroit River holds a very low slope of only a ten-foot change over a half mile. The site only holds an elevation change of two feet over the two hundred-foot site.



Map Generated From (USGS, 2011)

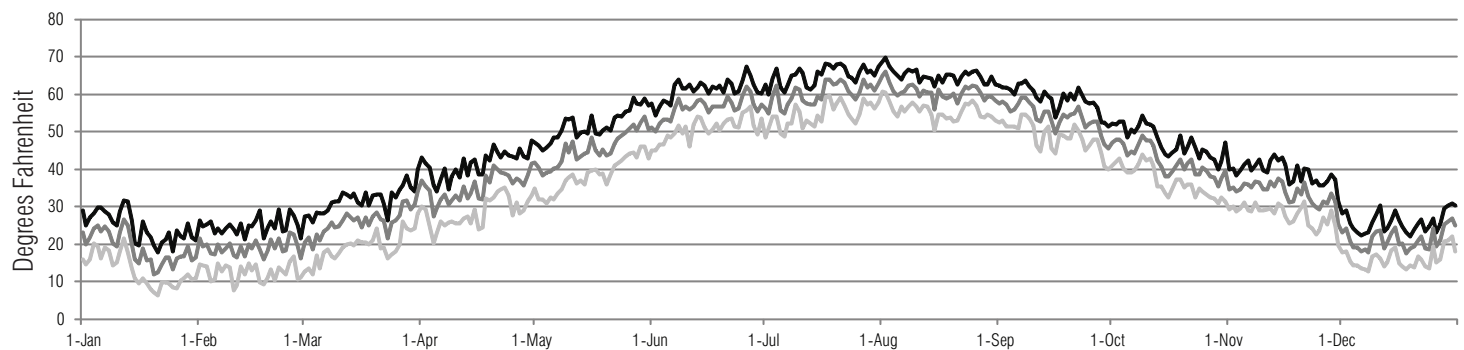
# CLIMATE

## AVERAGE TEMPERATURE



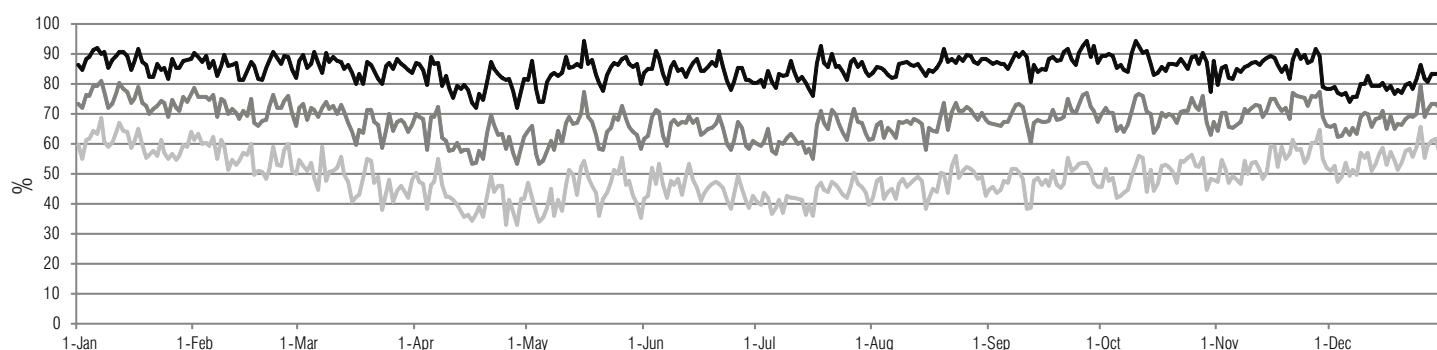
The temperate climate is controlled by the large Lake Michigan. Sub-freezing temperatures are common throughout the winter months however.

## AVERAGE DEW POINT



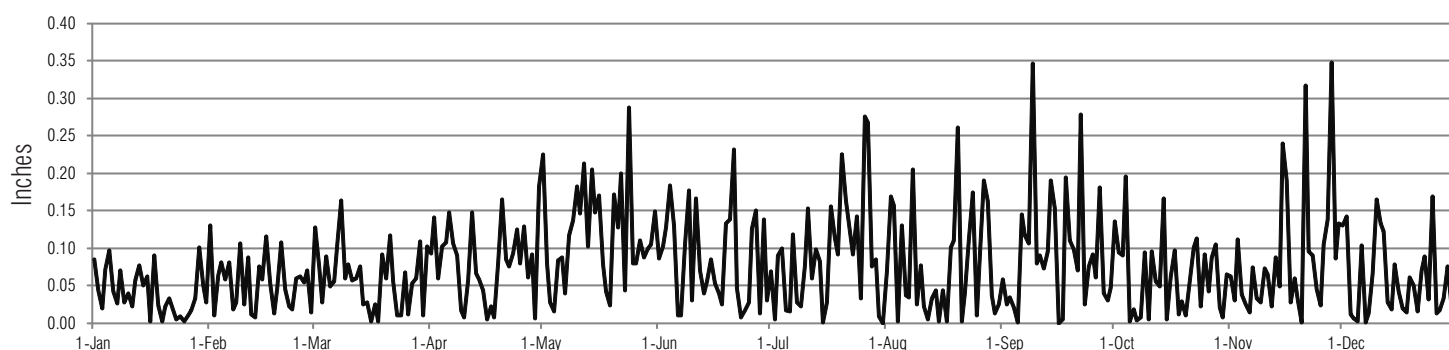
Dew point for the area, again, is impacted greatly by the bordering large body of water.

## AVERAGE HUMIDITY



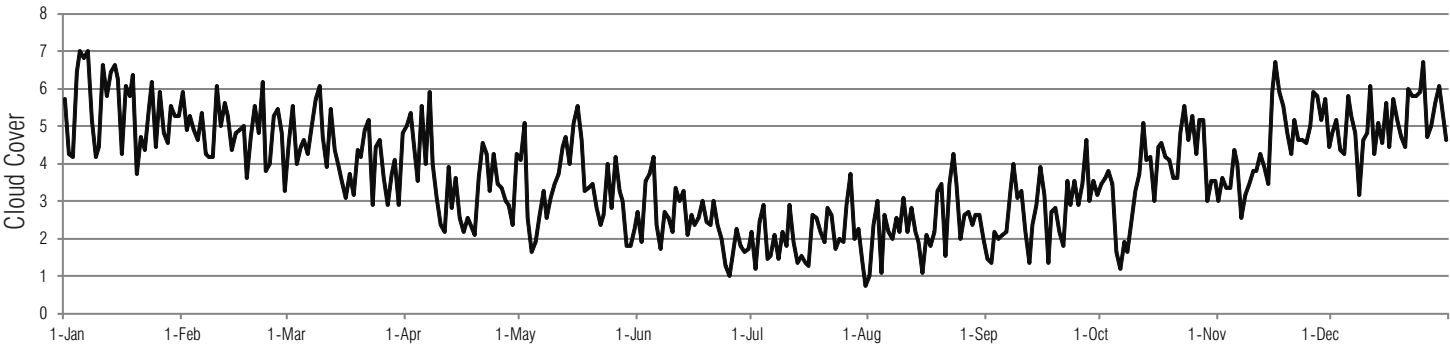
Humidity levels are consistent throughout the year. At an average of 68%, the humidity is comfortable year round.

## AVERAGE PRECIPITATION



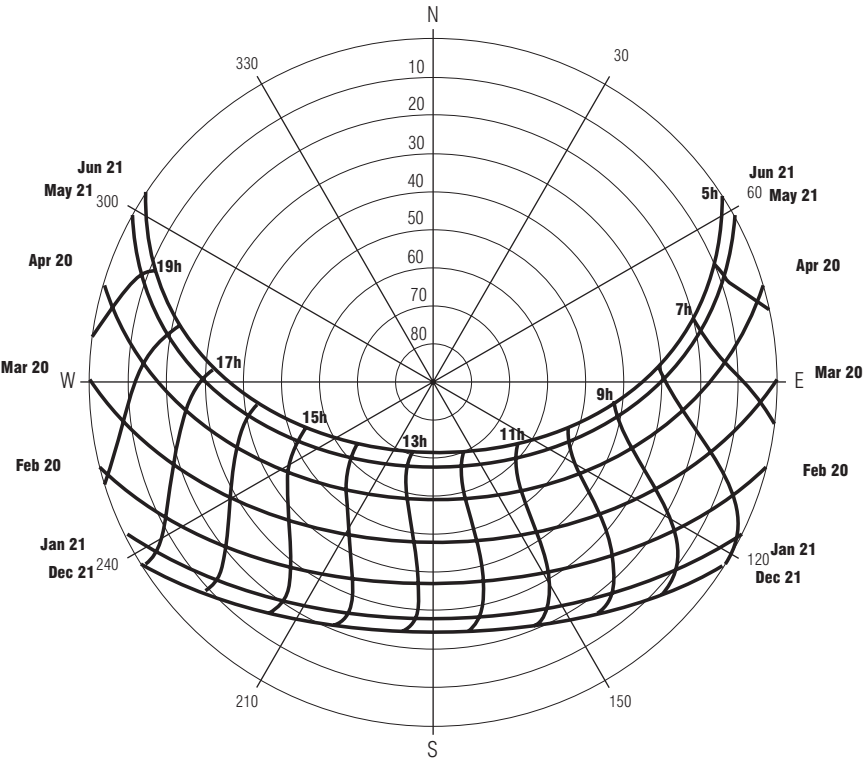
Precipitation is relatively sparse for the region. To the north of Michigan's main peninsula, precipitation can reach as much as three times the average of Detroit.

AVERAGE CLOUDCOVER



The yearly cloudcover provides Detroit with a unique light quality within the city.

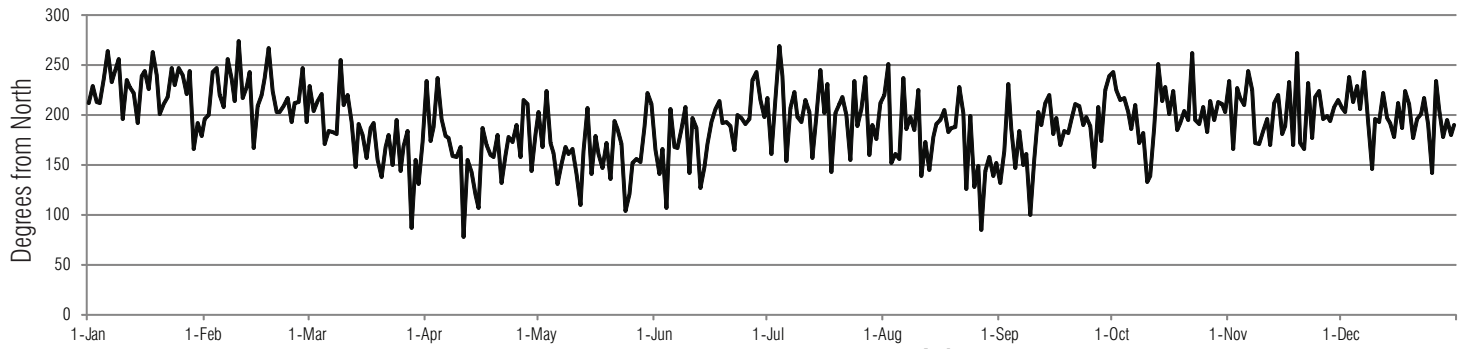
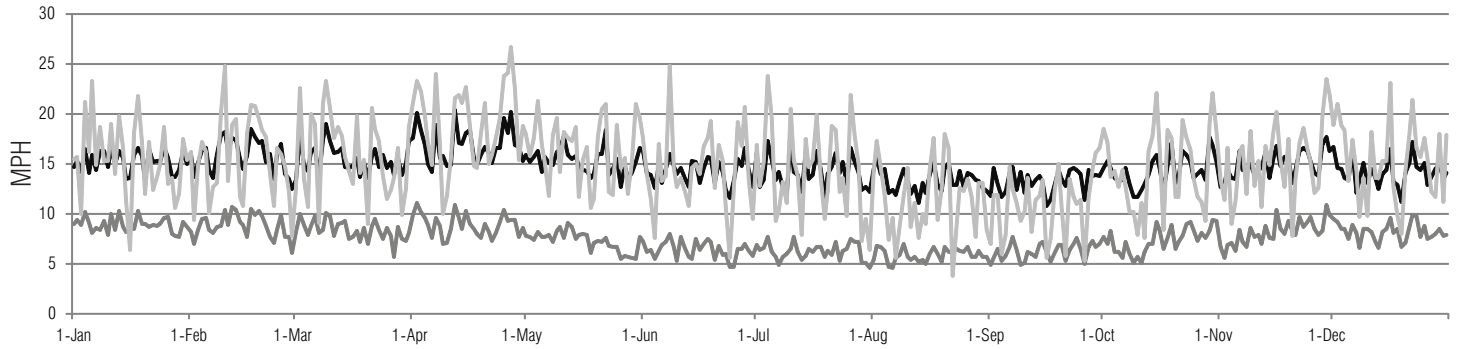
YEARLY SUNPATH



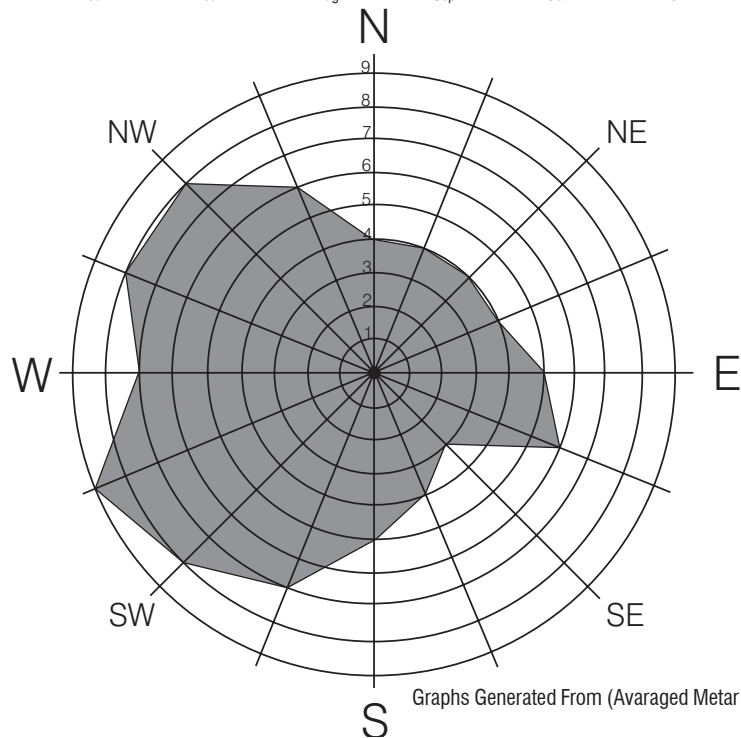
42 degrees 23 minutes North  
83 degrees 05 minutes West  
The yearly sunpath is similar to other cities such as New York and Chicago. Also, the city faces into morning sun creating a dramatic morning light quality.



## AVERAGE WIND



Average wind within Detroit is calm yet consistent. The micro climates created by the urban environment have the ability to accelerate even the calmest breeze.

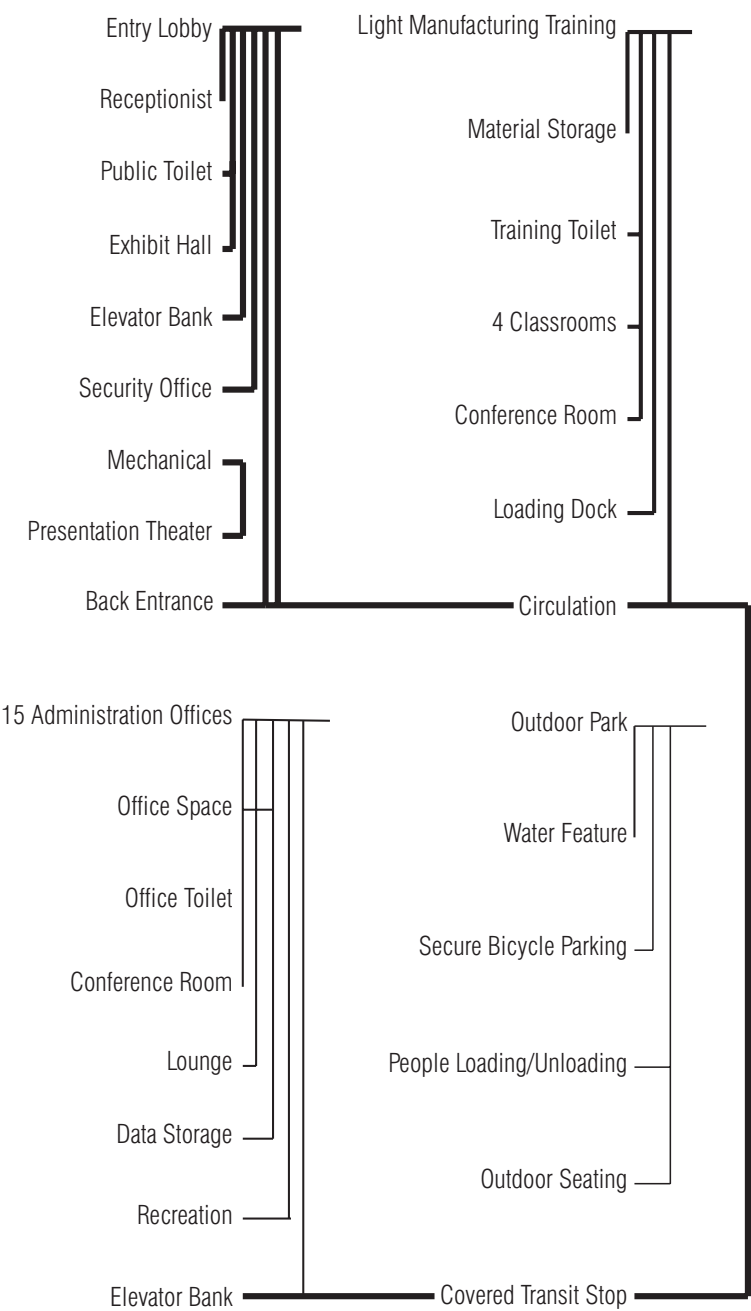


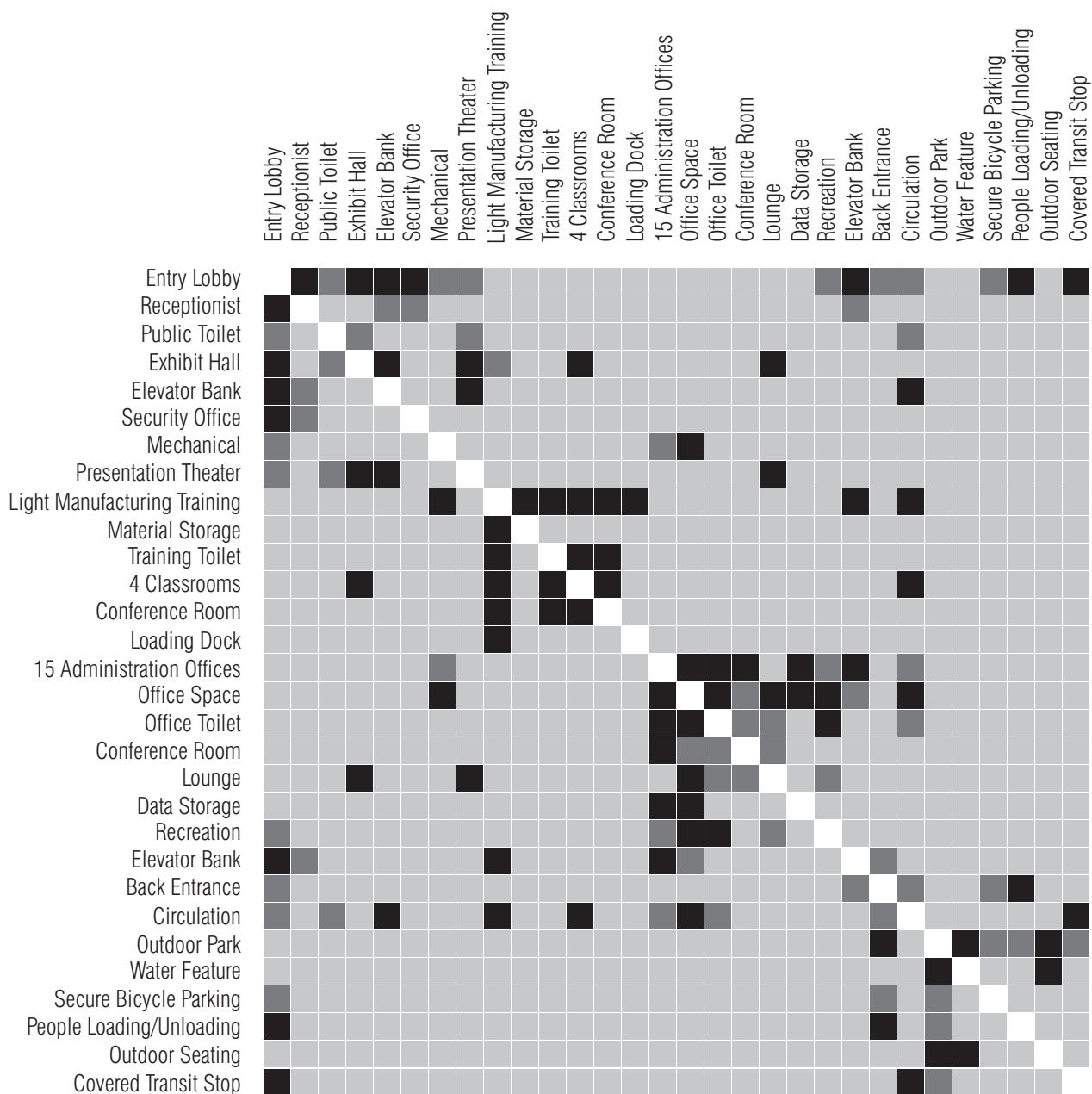
Graphs Generated From (Avaraged Metar Reports, 2011)

# PROGRAM REQUIREMENTS

## INTERACTION NET

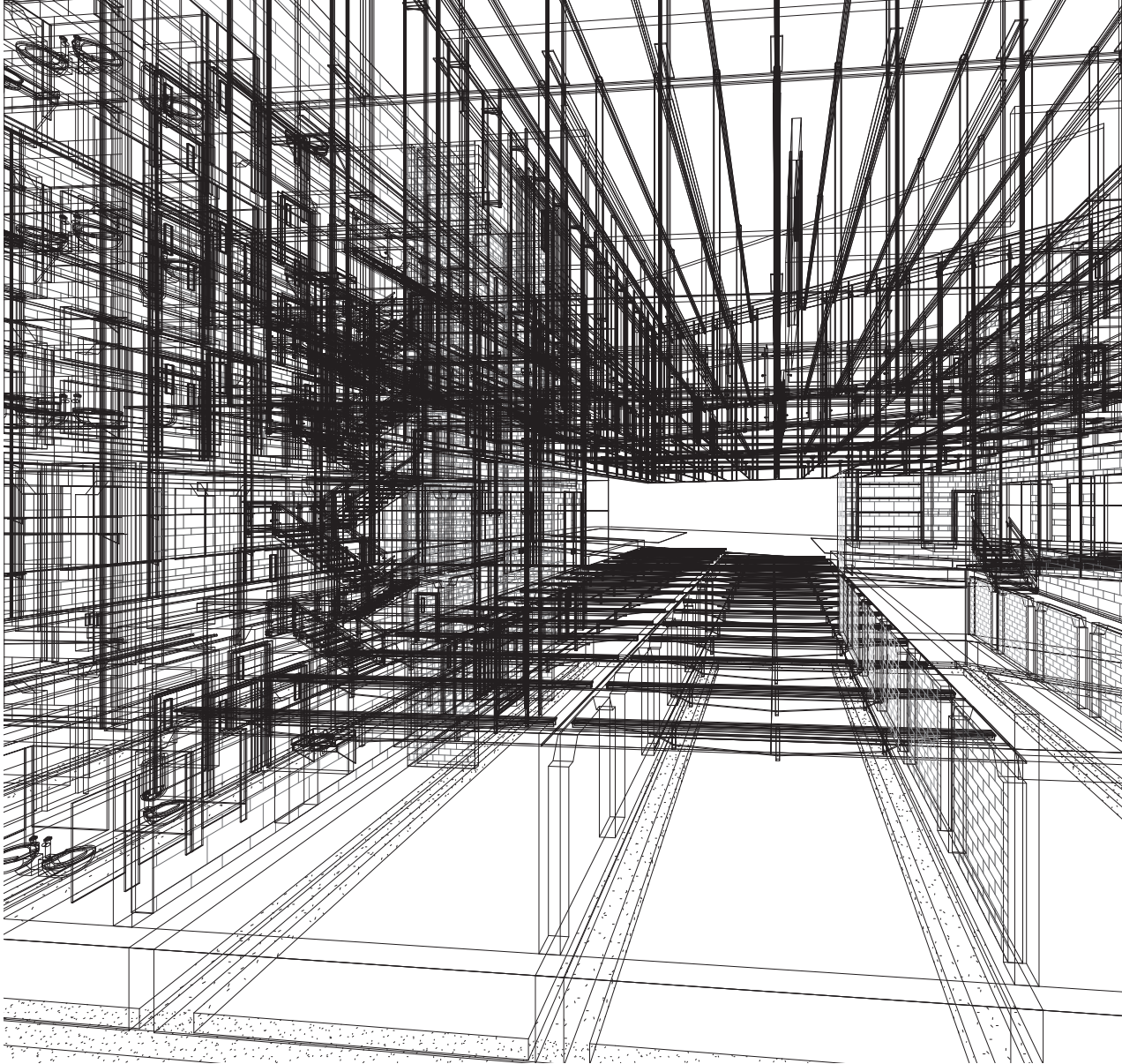
1500 sq ft	ENTRY LOBBY
75 sq ft	RECEPTIONIST
400 sq ft	PUBLIC TOILET
1600 sq ft	EXHIBIT HALL
150 sq ft	ELEVATOR BANK
500 sq ft	SECURITY OFFICE
800 sq ft	MECHANICAL
1200 sq ft	PRESENTATION THEATER
4000 sq ft	LIGHT MANUFACTURING TRAINING
2000 sq ft	MATERIAL STORAGE
400 sq ft	TRAINING TOILET
3000 sq ft	4 CLASSROOMS
800 sq ft	CONFERENCE ROOM
150 sq ft	LOADING DOCK
2250 sq ft	15 ADMINISTRATION OFFICES
3500 sq ft	OFFICE SPACE
400 sq ft	OFFICE TOILET
800 sq ft	CONFERENCE ROOM
800 sq ft	LOUNGE
1000 sq ft	DATA STORAGE
1000 sq ft	RECREATION
150 sq ft	ELEVATOR BANK
500 sq ft	BACK ENTRANCE
2000 sq ft	CIRCULATION
<b>28975 sq ft</b>	<b>BUILT TOTAL</b>
<b>7350 sq ft</b>	<b>PROPOSED FOOTPRINT</b>
15000 sq ft	OUTDOOR PARK
1000 sq ft	WATER FEATURE
400 sq ft	SECURE BICYCLE PARKING
2000 sq ft	PEOPLE LOADING/UNLOADING
400 sq ft	OUTDOOR SEATING
50 sq ft	COVERED TRANSIT STOP
<b>18850 sq ft</b>	<b>SITE TOTAL</b>





# 772 THESIS

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# ARCHITECTURE PROJECT

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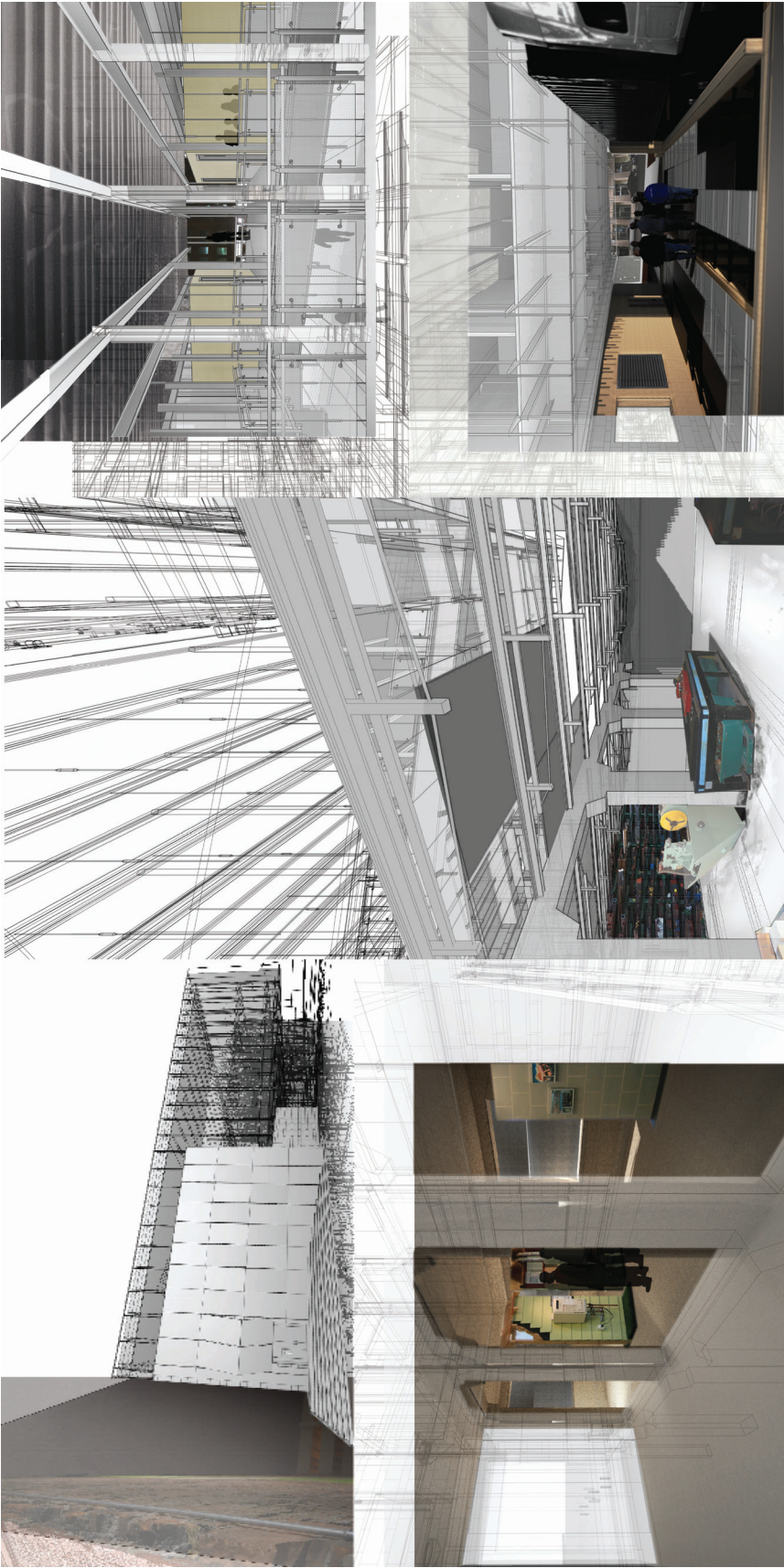
**etroit's New Workforce**  
A DETROIT RENEWABLE ENERGY WORKFORCE TRAINING CENTER

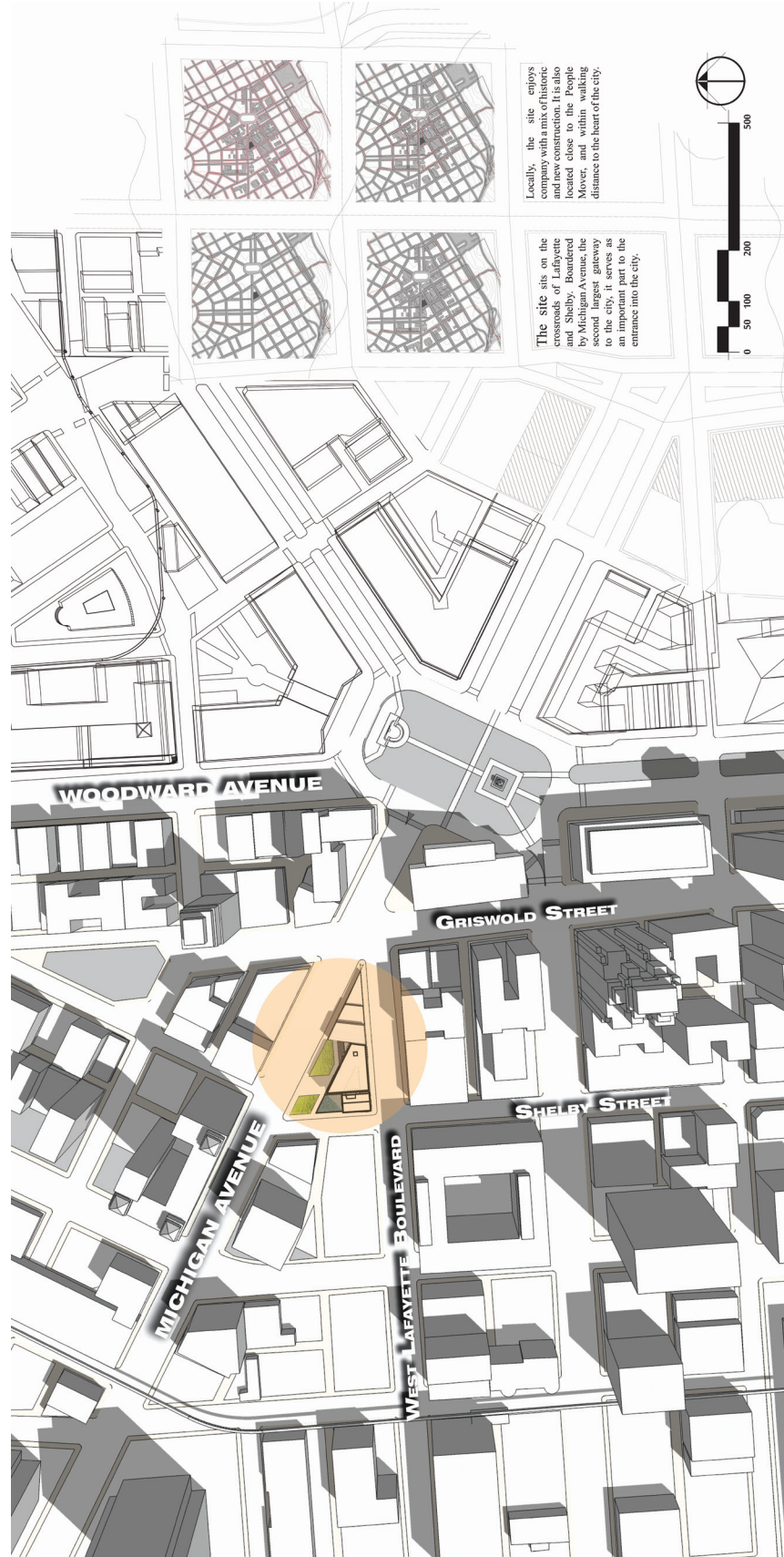




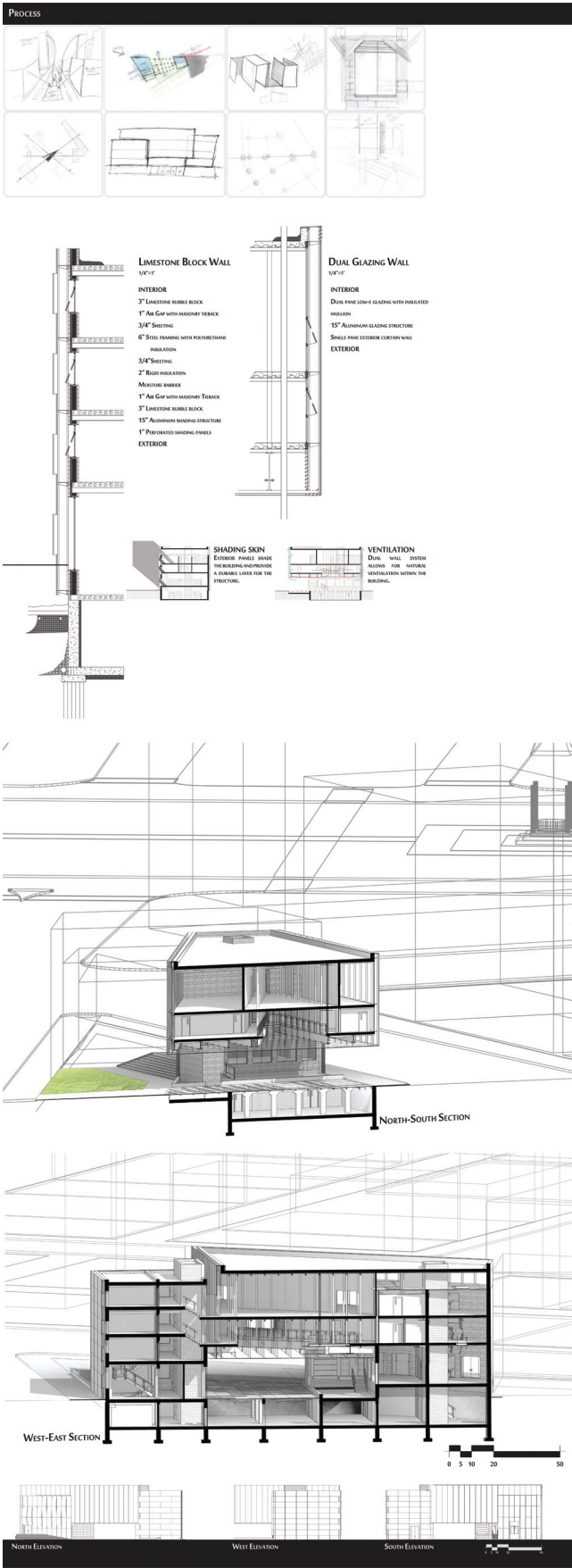


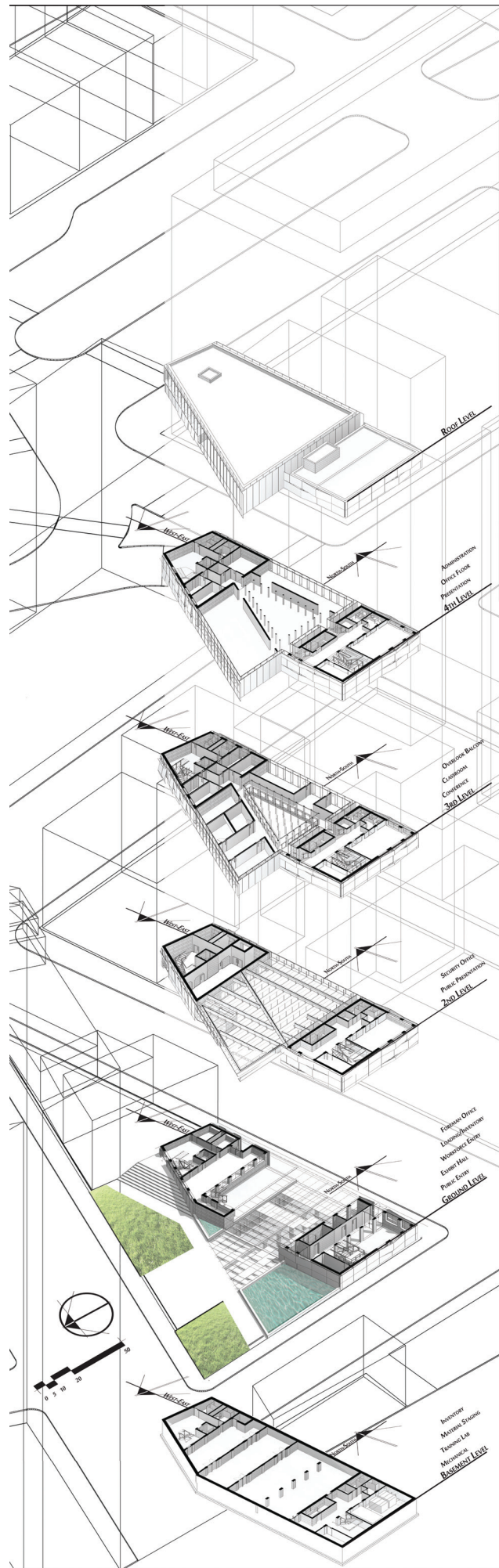






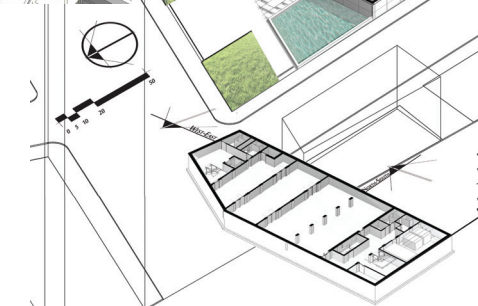
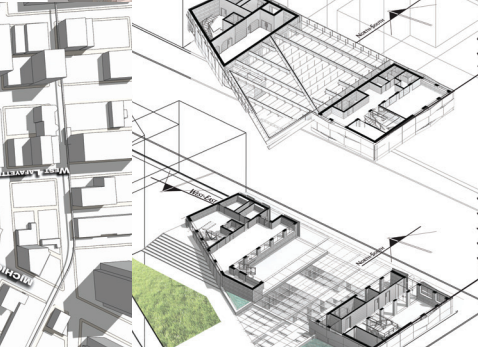
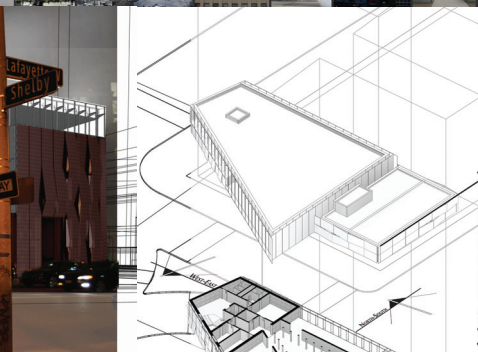
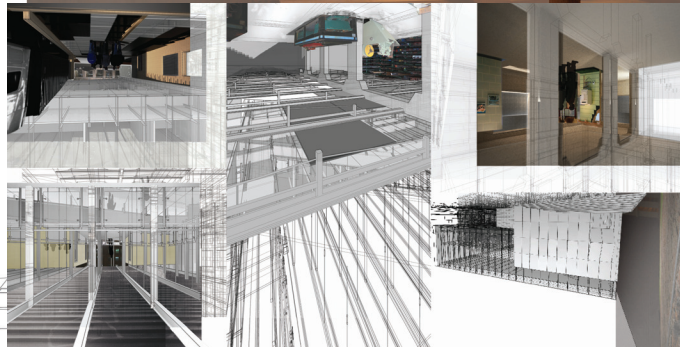
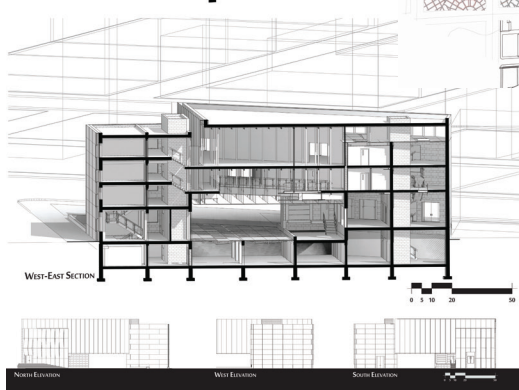
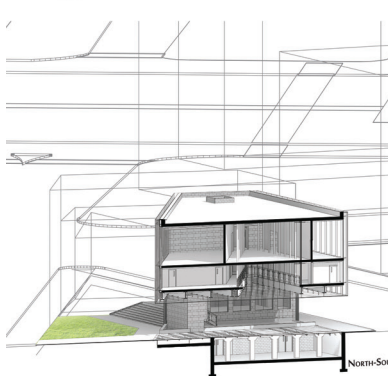
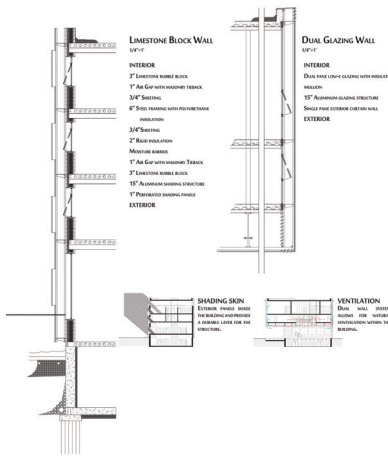
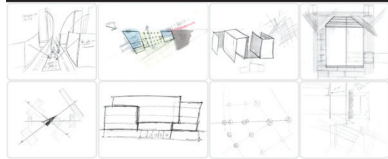




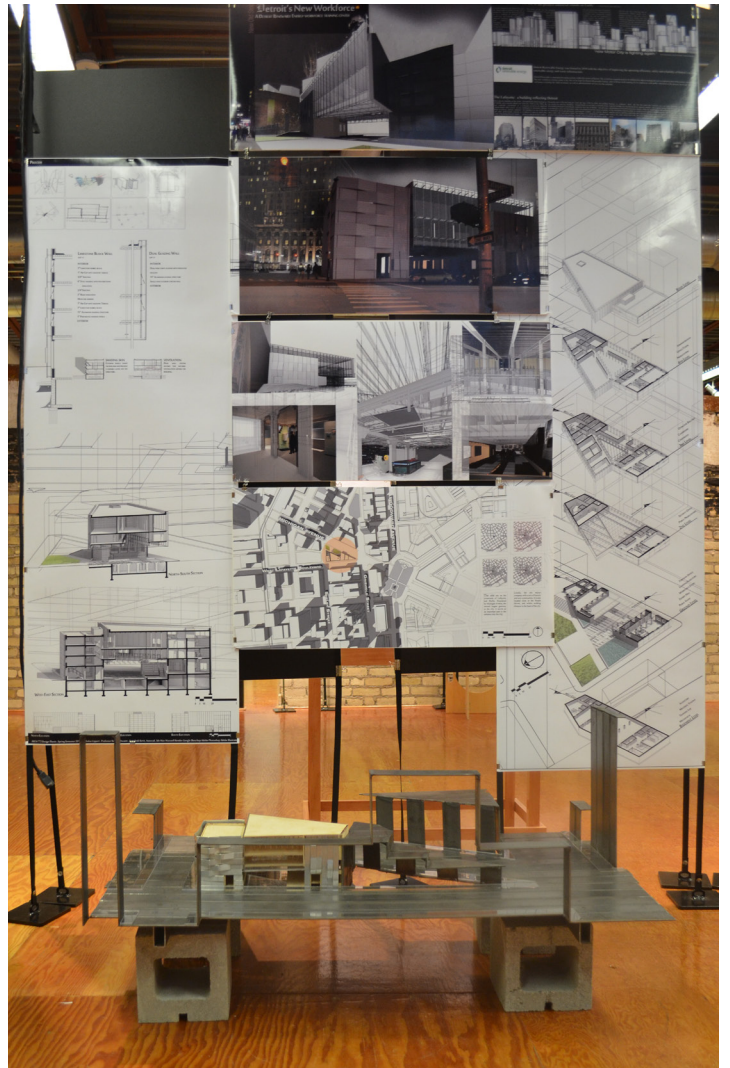
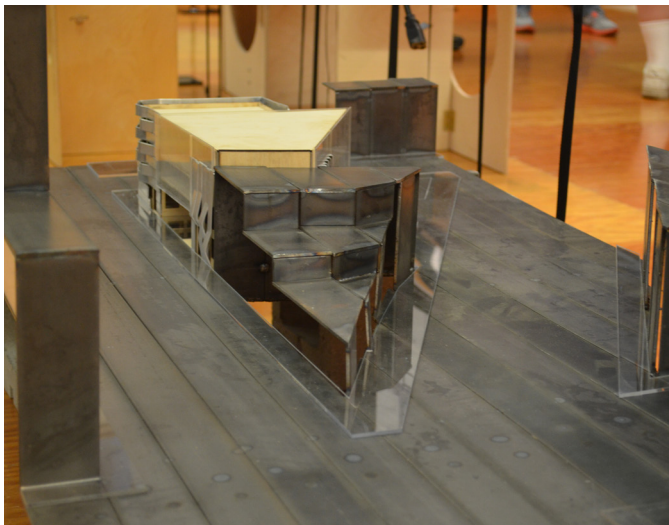
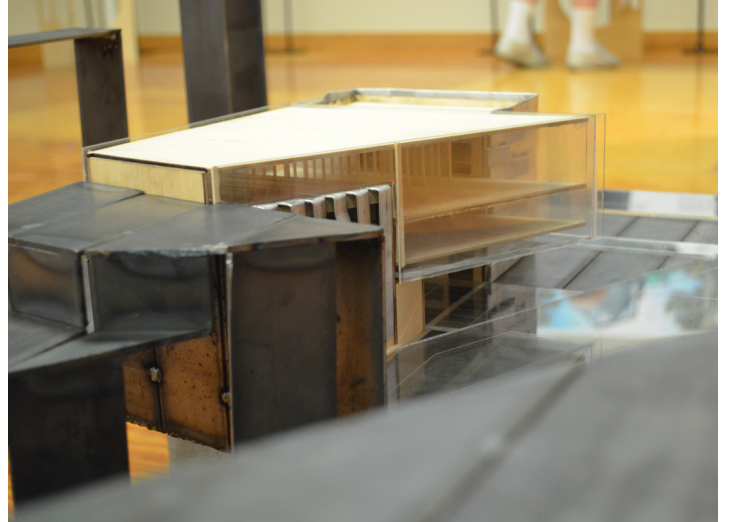




PROCESS







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